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# Infantry

A PROFESSIONAL JOURNAL FOR THE COMBINED ARMS TEAM

37

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# Infantry

A PROFESSIONAL JOURNAL FOR THE COMBINED ARMS TEAM

A Department of the Army Publication

65th Year

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Volume 75, Number 1

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## FRONT COVER

In the future we will not be able to avoid military operations in urban terrain. Therefore, we had better be ready for the battles we will have to fight there.

# USAIS

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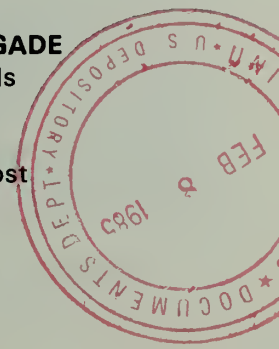


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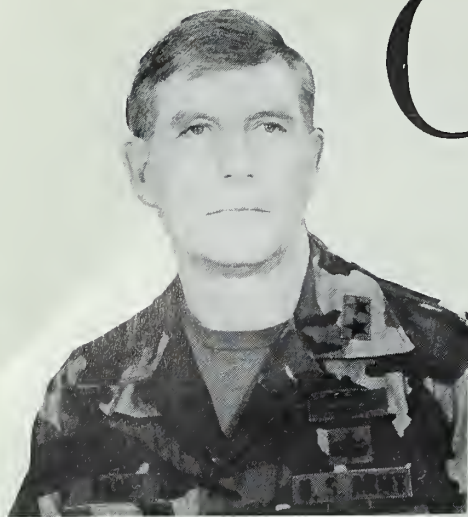
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# Commandant's NOTE



**Major General John W. Foss**

Chief of Infantry

## CURRICULUM CHANGES

The goal of the U. S. Army Infantry School is to produce the world's finest Infantrymen. To do this, in the face of changes in equipment, doctrine, and force structure, we constantly evaluate our instructional and training programs and, if necessary, revise them to keep them realistic and doctrinally correct. We have made several such curriculum revisions in the past few months.

First, we have added a week to the Infantry Officer Basic Course (IOBC), making it 17 weeks long. We did this so we could include more hands-on, field-oriented training. With this change, more than 80 percent of the program of instruction is now taught in a field environment.

We have also incorporated three innovative training ideas into IOBC. These ideas take the form of the Tactical Leadership Course (TLC), the Maintenance Certification Program, and the Advanced Land Navigation Exercise, which includes a challenging orienteering course.

As I mentioned in my Note in the July-August 1984 issue of *INFANTRY*, the TLC gets training in leadership and tactical skills out of the classroom and into the field. The objectives of the course are to teach the young officers how to train, how to fight, how to lead, and, most important, how to build a team.

The Maintenance Certification Program, on the other hand, exposes the officers in IOBC to in-depth instruction in maintenance operations and procedures so that they will be able to meet the needs of Infantry units in the field. This program concentrates on vehicles, weapons, NBC, and communications maintenance.

The Advanced Land Navigation Exercise, which is the third of our new training ideas for the IOBC, is designed to reinforce the land navigation training that the young officers receive in the course.

We have also made some changes in the Infantry Officer Advanced Course (IOAC). Beginning this month, January 1985, the course itself will be shortened from 26 to 20 weeks. Six of those weeks will be devoted to a common core of subjects, which all branch service schools will teach. The other fourteen weeks will be devoted to instruction in related Infantry skills, to include maintenance certification.

A number of officers from each IOAC will remain at Benning after they have completed the 20-week course to attend a follow-on course of instruction in which they will receive intensive hands-on training in a specific area related to their next assignment. Courses under consideration are light and heavy infantry operations courses, an infantry officer maintenance course, and the Bradley Commanders Course.

In addition to the changes listed above for both the IOBC and the IOAC, we are gradually adding to both courses instruction on the Bradley fighting vehicle. That instruction will focus on the tactical employment of the vehicle and on its maintenance aspects.

We have also revised the program of instruction for the Advanced Noncommissioned Officer Course (ANCOC). The POI now provides instruction on common Skill Level 4 Infantry training and on common core subjects that have been developed by the Sergeants Major Academy. It also includes the Tactical Leadership Course and maintenance certification.

The common core block of instruction for ANCOC has been developed to eliminate variations in the common skills that are taught at all of the branch service schools and to foster standardization through the universal application of uniform practices and procedures. Although the common core of subjects will need to be upgraded periodically, it now forms a solid base for ANCOC training in every school.

As in IOBC, the TLC and the maintenance certification program are worthwhile additions to the new ANCOC POI. Here, too, the emphasis is on developing high-quality soldiers. The TLC stresses leading, training, fighting, and teamwork, while the maintenance block of instruction concentrates on training our Infantry NCOs in the proper maintenance operations and procedures to meet the needs of our Infantry units in the field.

We at the Infantry School have an earnest and explicit agreement to initiate in these courses a developmental process that will give our graduates confidence in their own ability to perform at their best in combat. We take pride in the instruction and guidance that is passed along to the soldier here at Benning. And we eagerly accept and practice our responsibility to lead, develop, and inspire the Infantry leaders of tomorrow.

# INFANTRY LETTERS



## MARVELOUS INFANTRYMAN

Undoubtedly you have taken flak about the picture of that marvelous Infantryman on page 1 of your July-August 1984 issue. Sure, his ammo is dangling about and dragging the ground. It's wrong but it's Infantry, and I'm sure a good sergeant took care of this soon after.

But still, it's a great shot of the Infantryman we love and have seen countless times. This guy is tired, dirty, and grimy, but he has the swagger and the determined look of a winner.

The picture is a damn sight better than the staged "photo opportunities" that plague us.

H.T. FINCHER, JR.  
COL, Infantry  
USMOG/UNTSO  
Jerusalem

## DEFENDER RESPONDS

In the letters section of the September-October 1984 issue of *INFANTRY* (p. 50), Captains Michael Phipps and F.R. Hayse provide a critique of the tactics instruction in the Infantry Officer Advanced Course. While their letter is in the main a reasonable one, it is not without fault. Readers must remember, for one thing, that these captains were students in IOAC 4-83 — more than a year ago — and much has changed since then.

Having been in the Defense Branch of the Infantry School's Combined Arms and Tactics Department since June 1983, I can say that some of the faults cited in the Phipps-Hayse letter are simply not true. In the opening paragraphs the authors state that "the students are presented . . . a hypothe-

tical scenario that seldom changes between operations." Just as in 1983, there are now no less than ten different scenarios ranging from defending Lawson Army Airfield on Fort Benning to defending the city of Columbus, Georgia, during a MOUT (military operations on urban terrain) exercise. Although a European location is the common thread in some classes, we also defend with a mechanized task force in Manchester, Georgia, one-half hour from Columbus. And a separate Korean scenario is presented now just as it was earlier.

Captains Phipps and Hayse also state that "in the scenario . . . the higher 'commander's guidance' severely limits the student commander as to the options available." If they believe that a commander's intent (guidance) is a limitation, they're right. If they believe that a commander's intent inherently reduces their ability to think, they're wrong. Being "too audacious" is one thing; violating a commander's intent, without concurrent approval to do so, is quite another. (In fact, the latter could be fatal to the troops that these captains and others might lead one day.)

Since the authors' course, however, we in the School have made some of the changes they suggest in their letter. The students in IOAC now issue an oral operations order, one-on-one with an instructor, during a mechanized team tactical exercise without troops (TEWT).

Besides adding the oral order, we have reorganized the students into six-man staff groups, which, along with the instructor, "wargame" courses of action with other six-man staff groups. Each of these staff groups — put together with previous company commanders, other maneuver arm officers, and Allied officers spread throughout the class — works as a

team and the members learn from each other as well as from the instructor.

We agree with Captains Phipps and Hayse that training on how to think is more important than on "what" to think. We base all our instruction on doctrine and then apply that doctrine against the ten scenarios in the defense block of instruction. The estimate of the situation is the most important factor in "how" we think: What's the process and how does it work here, in this particular location, this particular terrain?

We agree with the authors about getting rid of the "inane arguments concerning the placement of units or weapons." So we made a change to get the students off the CAMMS board (Computer-Assisted Map Maneuver System) and have them execute command, control, and communications during the CAMMS exercise as the commander and staff of a mechanized infantry/armor task force. The execution of a CAMMS exercise is now a high-stress, performance-oriented series of four hours of defensive exercises.

We do not, however, agree that the Allied students and exchange instructors should teach the "tactical adaptations and doctrine of their armies, not ours." There is only enough time and resources to get our own doctrine across to everyone. Students certainly can seek out our Allied friends and pick their brains for other views of how to do things; indeed they are encouraged to do so.

Currently, we test in much the same way the authors recommend, except that we do not have the students write and brief a five-paragraph field order as a final exam. (During company-level instruction, we do the oral order but do not subject a student to doing it in front of his peers.) While this is a



feasible idea for final testing, the authors admit that it "would require more time than is now allotted." I would make that "a lot more time." Only with more time and also more instructors would a final exam such as the one they propose be possible.

These two captains, even in their criticism, conclude by saying that "a great many U.S. Infantry captains are quite competent in small unit tactics." And the Infantry School is presently providing a course that is as performance-oriented as it can be in an effort to ensure that the U.S. Army Infantryman gets the best company commander possible.

RICHARD D. MCCREIGHT  
MAJ, Infantry  
Fort Benning, Georgia

## HISTORY AND TACTICS IN IOAC

I read with interest the article by Lieutenant Colonel Richard F. Timmons ["Junior Leader Proficiency," page 22] and the letter by Captains Michael Phipps and F.R. Hayse [page 50] commenting on training and tactics at the Infantry School in INFANTRY's September-October 1984 issue. Both emphasize the need to incorporate military history and the study of the art of war into the School's curriculum. The captains especially stress the use of examples from the eastern front in World War II. I agree completely and only regret that the authors did not check on the changes that have taken place since they attended the course before making their remarks.

We have recently made substantial advances in both areas. We now offer five hours of instruction on the Russo-German war and discuss the entire range of operations on the eastern front. (This can, of course, be no more than an introduction to that vast subject.) The Combined Arms and Tactics Department uses these hours as an introduction to its instruction on tactics, intelligence, and Soviet forces. We stress the scale of that war, its brutal nature, and the methods the Red Army used in that epic struggle.

These classes emphasize the need to understand mobile warfare as practiced by Guderian, Manstein, Balck, and other German leaders. We further cite numerous ways in which the history of that war can be of use to modern officers. I have no doubt that the Infantry School leads the entire TRADOC school system on this point.

We also now require each student in the advanced course to write a lengthy research paper on any topic of his choosing related to military history or the art of war. Students must further read three books on military history chosen from a short list established specifically for our junior officers. This program introduces them to what we think are some of the basic professional studies and takes the first step in encouraging them to build their own professional libraries.

Finally, we use the class introducing the students to military history to emphasize (to both basic and advanced course students) the necessity of studying military history and the art of war as the only means of developing the type of judgment required by the AirLand battle doctrine. We outline the content of a good reading program for professional self-development, suggest some ideas on how to identify good journals and books, and provide numerous examples of the importance of military history. Some of these examples draw upon very recent developments within the School and within the TRADOC system.

We still need to infuse history into the tactical instruction even more than we do now, and a vigorous major effort is already under way in that area also. No program is perfect, of course, nor can a program satisfy everyone.

The authors cited earlier offer some very positive suggestions on the use and application of military history. In fact, they are so good that we have already adopted as many of them as is currently feasible.

DANIEL J. HUGHES  
Historian  
U.S. Army Infantry School

## EXCELLENT ISSUE

Thank you for your excellent September-October 1984 issue. An entire issue devoted to leadership is a welcome sight. With the current trend toward multi-contingency units, leadership becomes the linchpin to *effective* deployment.

The note about pushup deficiencies troubles me. A recent article in *Military Review* (March 1984) entitled "REFORGER: Realistic Training for the ARNG" also lists physical conditioning as "among the most pressing problems." All the scenarios I have seen, been told about, or dreamed up for a future war refer to a short and physically demanding conflict (forget mentally until it's all over). Add to this the fact that the existing Reserve Components are probably the first and last replacement or augmentation source for the Active Army and it makes for frightening visions of exhausted soldiers too tired to fight at a critical juncture in the course of the big battle.

Forget about the mental? The question raised about revising IOAC tactical training is interesting and is probably still valid for IOBC as well. Captain Maginnis's article ["Independence on the Modern Battlefield," page 29] answers this question in his remark that "all of us . . . should encourage our small-unit leaders to find new ways of building independence." He goes on to say, "We should be instrumental in getting them out of garrison into the field to learn to know themselves, to face the challenge of thinking for themselves, and to expand their horizons beyond the unit's borders."

IOAC is where the theory is taught to ensure uniformity of background throughout the Army. Personal initiative in reading historical tactics is identical to the discipline necessary for physical readiness training. (Although S.L.A. Marshall may have wanted to teach Infantry leaders to think, I would hope that he meant that he wanted to *encourage* them to *think* and to *do*.)

Lieutenant Colonel Robert L. Friedrich's notes on NET ["NET,"

page 32] are welcome in that many more commanders will be faced with seemingly insurmountable tasks similar to his, but, as he says: "We learned many lessons. The most significant one was that good planning . . . makes execution simpler."

And last but not least are Major Vernon W. Humphrey's comments on the National Training Center ["NTC: Command and Control," page 36]. It appears that we must take Colonel Friedrich's "lesson," combine it with Captain Maginnis's "suggestion," and hope that we passed our APRT — and that we do not face the enemy with a Bafort Bayonet Replacement [see *INFANTRY*, May-June 1984, page 49].

I suggest to other readers that they re-read the entire issue and if possible also read the *Military Review* article cited here.

**TERRY W. HARMON**  
CPT, Infantry, USAR  
St. Louis, Missouri

## **IMPROVED M203**

I am an antiarmor company commander in a mechanized infantry battalion where the 81mm mortar is sorely missed. Its absence leaves only one indirect (or semi-indirect) fire weapon in the inventory — the M203 grenade launcher. The M203 is an outstanding weapon. It is a suppressive fire weapon from the platform of the M113, an effective area fire weapon at longer ranges, and an accurate, close-quarter "knuckleduster" in the hands of a grenadier. Thus, the M203 can be used to separate enemy infantrymen from their carriers, to clear buildings, and to terminally discourage the most determined of snipers and machine-gunners.

But I think it can be made even better. What if we combined an improved barrel and chamber, and a new quadrant and "flip-up" front sight? The weapon should then have an extended range to 600 meters, a flatter trajectory, and a better steel-on-target capability. We could call it the Magnum 203.

What are the possibilities for such a weapon?

First, the company commander could engage an area target such as dismounted infantry and APCs out beyond the maximum effective range of the M16 and in conjunction with the .50 caliber and 7.62mm machine-guns to separate the infantry from their carriers and tanks and to destroy some of the vehicles in the process. With tight, inter-platoon fire control the commander could concentrate his Mag 203s and have a long-range "assault breaker" not unlike the old 81mm.

The Mag 203, with its increased explosive capability, would also be a bridge between the hand grenade and the rifleman's assault weapon in urban fighting. And it would be the equalizer in the hands of the four-man crew of the M901 ITV in the antiarmor company. The weapon could be used in conjunction with the smoke dischargers and the machinegun to break contact and suppress infantry attacks.

Finally, the infantry company could use the Mag 203 as an anti-helicopter weapon in addition to its attached Stinger teams. Several 40mm rounds fired into the path of a predatory HIND-D could definitely distract the pilot's attention.

The inevitable question is what the cost of the Mag 203 would be. The M203 would have to be modified, the operators would have to wear flak jackets to dissipate the recoil, and they would need more range training time. But the advantages of greater range and power would be worth the cost, whatever it was.

**BO BARBOUR**  
CPT, Infantry  
APO New York

## **MOBILE SCALE MODELS**

The Fort Benning Field Unit of the Army Research Institute is investigating the use of 1/8-scale, radio-controlled tanks for infantry fighting vehicle training. Recent technological advances have made possible re-discovering old uses for miniaturized

vehicles in a natural setting and developing new training strategies with them. In addition to their obvious use as mobile, reactive targets for gunnery training, the tanks can be used for tactical and leader skills training.

Although the use of scale models has a long history in military training, only a few articles or research reports discuss their uses. I would like to obtain information from people who have used mobile scaled models or who have ideas for using either static or mobile scaled models for training purposes.

My address is ARI-Ft Benning Field Unit, P.O. Box 2086, Fort Benning, Georgia 31905; and my AUTOVON number is 835-4513.

**DR. JOHN C. MOREY**  
Research Psychologist

## **LRRP UNITS**

The 3d Reconnaissance Company was formed to conduct the deep reconnaissance mission during REFORGER '82. At that time it was only a 21-man section under Company A, 3d Aviation Battalion (Combat), 3d Infantry Division. It was by no means the first long-range reconnaissance unit in the Army; the 9th Infantry Division Scout Company and the Michigan and Texas National Guard LRRP units preceded it. But it was the first unit of its type formed in USAREUR.

The work of this company and the other units like it has finally borne fruit in the formation of corps LRRP companies and divisional detachments under Division 86. The need for units of this type has been demonstrated over and over again in countless REFORGERS and by the use of Allied LRRPs to support U.S. corps.

The purpose of this letter is not to restate what has already been said in numerous articles about LRRPs but to discuss the decision to attach divisional LRRP detachments to the headquarters troops of the cavalry squadrons in both the heavy and the light divisions.



The need for specialized training and training resources for units of this type is of the utmost importance. Personnel in European LRRP teams have served from four to six years together. I believe the detachments that are now under division control would be better trained and manned if they were detachments of their respective corps LRRP companies.

This organization would offer many benefits:

- The LRRP detachments would be protected from being misused as they were misused in Vietnam.

- Their training would be significantly improved if it were consolidated at corps level. Training resources such as the International LRRP School in Weingarten and the numerous international exercises held by our allies could be a benefit to all the LRRP units in the Army.

- They would be part of an organization that was more oriented toward their needs and requirements.

- The quality of the personnel, either under a regimental or an additional skill identifier system, could be better controlled.

- The divisional detachment would be able to call on a larger organization, and one similar to it, for logistical and communication support.

- Additional insertion assets would be available to the divisional detachments from corps level and higher.

But if things develop as they are now planned, the divisional LRRP assets may well die on the vine as the corps LRRP units absorb all the training assets and the high-quality personnel.

The major concern of the division commander is the loss of control of this detachment to the corps, along with its responsiveness to his requirements. This concern can be allayed by putting these detachments under the operational control of the division and by including the G-2/G-3 and the assistant division commander in the detachment commander's rating scheme.

Under the present concept of organization, these long-range reconnaissance units are in danger of

being misused and inadequately supported. Now that we have this important asset back in the Army system, let's think through its proper position and role in that organization.

**JOHN G. PROVOST**  
CPT, Infantry  
3d Reconnaissance Company

## KEVLAR HELMET GOOD

I was shocked to read in the letters section of your May-June 1984 issue the comments of Lieutenant Colonel Robert P. Kingsbury (page 50). These comments left me and other paratroopers shaking our heads. I will not waste time debunking his theories, but I will state one hardcore fact!

During the 82d Airborne Division's mission in Grenada in October 1983, an infantryman wearing the Kevlar helmet was shot point blank in the head by a Cuban armed with an AK47. I'm sure all of us in the Army know the ballistics of the AK round, and so too did the developers of the Kevlar helmet. That helmet harmlessly absorbed the massive AK round and that soldier, with a supply of aspirin, continued with his mission.

This particular helmet is now on display in the "Grenada Exhibit" in the 82d Division's museum. The round is sticking one quarter of the way outside the Kevlar, where all enemy head shots should be!

By comparison, the old steel pot can't stop a .22 Magnum much less an AK47 round.

**DAVID C. CUSUMANO**  
PFC  
Ft. Bragg, North Carolina

## HISTORICAL ITEMS

The U.S. Army Center of Military History has received two requests for help in ascertaining the location of particular items. In order to ensure a thorough search for these items, we are asking for the assistance of your readers.

The United States Embassy in Bonn, West Germany, has requested assistance in finding 23 medals that once belonged to Field Marshal Helmuth Von Moltke (1800-1891). The available evidence indicates that the medals disappeared from the National Archives and Records Service in Washington, D.C., some time between 1945 and 1954.

In addition, Ms. Mina E. Wright, Architectural Historian, Office of Administration, Executive Office of the President, has requested assistance in locating 19 cannon that were located at the present Old Executive Office Building in Washington from 1898 until they were removed from the grounds in 1943.

Anyone who has any information on these subjects (or who may need a list of the guns in question) may write to Chief, U.S. Army Center of Military History, ATTN:: DAMH-HSM/ Dr. Norman Cary, Washington, DC 20314-0200, or call Dr. Cary at (202) 272-0310 or AUTOVON 285-0310.

**DAVID L. LEMON**  
COL, MPC  
Chief, Historical Services Division

## JODY, HQ STYLE

The following is in response to the Jody calls in your May-June 1984 issue (p. 30):

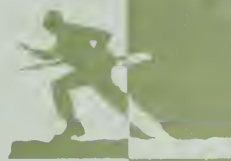
### HQs TROOP

I joined the Army to be a fighting man,  
Now I'm in headquarters sitting on my can.  
I shuffle papers to my left  
It's not the same as a PLF,  
I shuffle papers to my right  
It's not as exciting as a fire fight.  
Air conditioning and big old fans,  
I got no calluses on my hands.  
My uniform's clean and my boots shine bright,  
I get to sleep most every night.  
Up in the morning, go to work at 8  
Get off at 4 'cuz I got a date.  
In-box, out-box,  
What will it be?  
I'm a headquarters troop,  
Just look at me.

**MARKUS W. LEWIS**  
PFC  
3d Ranger Company  
Benning Ranger Division  
Fort Benning, Georgia



# INFANTRY NEWS



APPLICATIONS ARE NOW BEING accepted for attendance at the U.S. Military Academy Preparatory School (USMAPS) for the academic year that begins in August 1985. The School, located at Fort Monmouth, New Jersey, prepares young enlisted men and women to compete for appointments to the Military Academy at West Point.

Each year more than 300 enlisted men and women undergo nearly ten months of training at the School. And while the major emphasis is placed on academics, the development of leadership traits, discipline, and physical conditioning are also stressed.

To qualify, a soldier must be a U.S. citizen, or be able to become one before 1 July 1985; be single and with no obligation to support a child or children; be medically qualified in accordance with Chapter 5, AR 40-501; not have reached his 21st birthday before 1 July 1985; be of high moral character; and have a good high school record and desire a military career.

Additional information may be obtained from AR 351-12; from the Commandant, USMA Prep School, Fort Monmouth, NJ 07703-5509; or from the School's Admissions Office at AUTOVON 992-1807.

THE ARMY CORRESPONDENCE Course Catalog, DA Pamphlet 351-20, is published every six months (January and June). It includes all courses and sub-courses administered by the Institute for Professional Development (IPD) at Fort Eustis, Virginia, and outlines the procedures and administrative functions that affect student enrollment. The pamphlet also includes the correspondence courses offered by Army schools that administer their pro-

grams independently of the IPD.

Active and retired military members of all branches of the service, foreign military personnel, Army National Guard and Army Reserve personnel, and DOD civilians are eligible to take these programs of instruction. Enlisted personnel may receive promotion points and Reserve Component officers may receive retirement points for successfully completing these courses. In addition, the IPD does issue diplomas and completion certificates.

The Infantry School currently has 21 programs of instruction in the correspondence course catalog. The new catalog that will appear this month (January 1985) will reflect several changes in those programs. Sixty new subcourses have been added to the curriculum to replace outdated ones.

Information on the Infantry POIs can be obtained from the ACCP Branch of the Infantry School, telephone commercial 404/545-7151 or AUTOVON 835-7151. Information on the other branches is available from the IPD, telephone commercial 804/878-3667 or AUTOVON 927-3667.

THE FOLLOWING NEW ITEMS were submitted by the U.S. Army Infantry Board:

• **Night Vision Goggles, AN/PVS-7.** An effective low-cost system that will provide soldiers with a night vision capability is of particular interest to the Army. In 1980 the Army's Night Vision and Electro-Optics Laboratories developed two prototype low-cost night vision goggles;

one was a cyclops version, the other a holographic one-tube version.

The Infantry Board evaluated the two versions using the AN/PVS-5 goggles as the standard. The Board's test results indicated that a combination of characteristics of the two prototypes demonstrated sufficient potential for further development. (See also INFANTRY, July-August 1984, pages 3-4.) In January 1982 Department of the Army approved a requirement for the Night Vision Goggle, AN/PVS-7, and the Infantry Board was designated the test agency.

The AN/PVS-7 is a monocular lightweight image intensification device that uses a single image intensification tube. Power is provided by any one of three types of internal batteries. The user can strap the device to his head and have his hands free to perform tasks, or he can hold it in his hands and use it as he would binoculars. An infrared light-emitting diode provides illumination for close-in tasks (as close as 10 inches) such as map reading. The AN/PVS-7 weighs 1.93 pounds; the AN/PVS-5 weighs 2.02 pounds.

The test was started in November 1983 but was suspended after a week of testing because intermittent interruptions in the electrical circuitry of the goggles were safety hazards during weapons firing and the driving of vehicles. The items were returned to the developer to be corrected.

Testing of the corrected items was resumed in May 1984 but was again suspended by the Board after only five nights because of numerous reliability failures.

In June 1984 the Army's Training and Doctrine Command directed that the test be terminated and that the AN/PVS-7 goggles be returned to the materiel developer.

• **Improved Sniper Night Sights.**

## INDEX

The 1984 index to INFANTRY has been prepared separately and is available to anyone who requests a copy. Please address your request to Editor, INFANTRY Magazine, Box 2005, Fort Benning, GA 31905-0605.

From information provided by the Army Marksmanship Unit and units in the field, the Infantry School determined that the night vision sight, individual served weapon, AN/PVS-4, is only marginally adequate as a sniper night sight because of its size, weight, and shifting reticle.

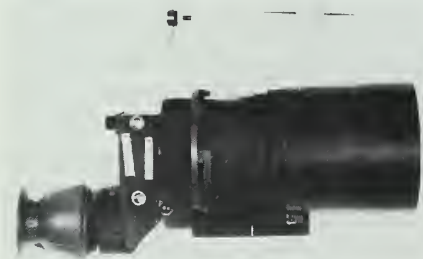
The Night Vision and Electro-Optics Laboratory (NVEOL) at Fort Belvoir indicated that two options



Sniper Weapon Sight (SWS-4)

were available in considering a new lightweight sniper night sight — to modify the AN/PVS-4 and to award a contract to a civilian corporation for the development of a new lightweight sight.

In July 1983 the Training and Doctrine Command approved a concept evaluation program test of an improved AN/PVS-4 and directed the Infantry Board to conduct a test. The test would compare the standard AN/PVS-2 and AN/PVS-4 sights with a modified AN/PVS-4 sight provided by NVEOL and a lightweight sniper night sight provided by a contractor.



New Lightweight Night Sight (NLNS)

The modified AN/PVS-4 used a 25mm scope rather than an 18mm scope, contained a baffled interior, and had a second-generation image intensifier tube. The new lightweight sniper night sight used an 18mm

scope, a third-generation image intensifier tube, and an offset eyepiece. The sight was designed to provide a personnel target recognition capability out to 600 meters in clear air under moonlight conditions.

The test consisted of detecting and recognizing targets during a nonfiring phase and of firing at E-type silhouette targets during a hit probability phase. All night vision devices were mounted on M16A2 rifles. Targets during both phases were located at ranges of 300 to 1,000 meters from the test soldiers.

The Infantry School will use the data obtained during the test to determine the potential of the test sights to replace the current sights now being used by sniper personnel.

**THE ARMY TRAINING BOARD** has completed work on the FM 25 series on training (FM 25-1, -2, -3, -4), and these manuals are now being distributed to the field.

FM 25-1, Training, covers the philosophy and principles of training. It is intended for leaders at all levels.

FM 25-2, Unit Training Management, explains the Army training management process. It is intended for use by battalion commanders and above, and by the staff members of those organizations.

FM 25-3, Training in Units, provides the "how to" for the conduct of training. It is for leaders at the battalion level and below — the first-line trainers.

FM 25-4, How to Conduct Training Exercises, describes the conduct and use of training exercises to sustain skills. It is intended for use primarily by commanders and staff officers at battalion level and above.

These manuals are available from the Army's Publications Center in Baltimore, Maryland. DA Forms 12A should be updated to check block number 59, Techniques of Military Instruction.

**THE FOLLOWING NEWS** items were furnished by the National Infantry Museum:

The National Infantry Museum recently observed its 25th anniversary. It had less than 200 artifacts when it first opened, but has now grown to a repository of more than 35,000 artifacts, 2,600 firearms, and a large collection of books, photographs, and documents. The Museum prides itself on its quarter of a century of service to Fort Benning, the United States Infantry, and the United States Army.

A number of names have been added to the plaques that list the three-time recipients of the Combat Infantry Badge. The names on the plaques now total 255.

The Fourth Annual National Infantry Museum's five-mile run was a great success. About 2,500 runners took part and nearly \$13,000 was raised for the Museum.

Volunteer tour guides are now on duty at the Museum on a regular basis to conduct guided tours for small groups and interested individuals. To ensure proper scheduling, requests for guided tours should be made well in advance of the anticipated visit.

Recently, the Museum conducted a ceremony that saw the presentation of a historical marker by the Daughters of the American Colonists to commemorate the signing of the Treaty of Coweta by General James Oglethorpe and the Creek Nation in 1739. The actual signing took place on what is now Fort Benning near Lawson Army Air Field.

Among the Museum's recent acquisitions are a Royal Canadian Regiment scarlet ceremonial dress uniform presented by Major David Bondurant, the Canadian liaison officer at the Infantry School; artifacts and memorabilia of the late Vietnam news correspondent Charles Black, given by his widow; a rare Krag Jorgensen bayonet; a Revolutionary War folding fork and wooden canteen; an 1830 rifleman's coat; some Chinese Communist weapons; a Swedish submachinegun; World War II British paratrooper jump headgear; a World War I medical flag that belonged to a medical unit in the 28th Infantry Division; and a framed, captured Liberation Front flag that was taken in Saigon



during the Tet offensive of February 1968.

A rare 37mm cannon manufactured by the Bethlehem Steel Company for the French Government in 1917 was placed on exhibit recently. The weapon was used to provide close support to the infantry during World War I



and is one of only three such weapons known to be in existence today. It was originally painted light blue to prevent heat absorption that might ignite ammunition before the gunner was ready to fire.

Another recently added exhibit is one about mechanized infantry. It includes a large oil painting of General George S. Patton, Jr., and a U.S. flag



made by some of the men of Company K, 260th Infantry Regiment to celebrate the German surrender in 1945.

The National Infantry Museum Society was formed at Fort Benning a number of years ago to help the Museum with financial and volunteer support. It is open to anyone who is in-

terested in joining. The cost is \$2.00 for a one-year membership, or \$10.00 for a lifetime membership.

Additional information about the Museum and the Society is available from the Director, National Infantry Museum, Fort Benning, Georgia 31905, AUTOVON 835-2958 or commercial 404/545-2958.

THE FOLLOWING NEWS ITEMS were submitted by the Directorate of Combat Developments, USAIS:

• **Airborne and Air Assault Infantry Battalion Organizational Structure.** The present organization of our airborne and air assault infantry battalions recently has been examined with a view toward proposing possible modifications to meet Army of Excellence organizational designs. The examination's objective was to arrive at divisional end strengths of 13,500 soldiers for the airborne division and 15,000 soldiers for the air assault division without affecting the divisions' ability to accomplish their doctrinal missions. The new Infantry Division (Light) organization was used as a base case with the idea of standardizing all light infantry units while still making certain the airborne and air assault divisions had the means to perform their unique missions.

Several different proposals for battalion organizations were looked at and discussed. Some of the areas of discussion were a weapons squad for the rifle platoon that would have the platoon's machineguns and Dragons; a company mortar section that would have two 60mm mortars; the need for vehicles in the rifle company for the commander and for resupply purposes; and the number of platoons in the antiarmor company and their organization.

Smaller TOW platoons of four TOWs each with four or five platoons were favored over the present three-platoon organization, with each platoon having six TOWs. The merits of the improved 81mm mortars versus the 107mm mortars for the battalion's mortars received much consideration.

The need for the scout platoon and the type of mobility for it (footmobile, motorcycles, fast attack vehicles, HMMWVs, or a combination of these) was examined on the basis of the types of missions the scout elements were expected to perform in each division.

Another area of great interest and study was the support platoon's organization, to include the need to keep mess and maintenance functions in the battalion rather than moving them to brigade headquarters as in the light infantry battalion. The numbers and types of vehicles that are necessary in the support platoon were also considered because of the airborne and air assault missions conducted by individual battalions.

The final decision on these various organizational structures will be forthcoming in the next few months.

• **Light Assault Weapon.** The need for a light assault weapon, or LAW, was first established in the late 1950s. The Army's experiences during both World War II and the Korean War demonstrated that the individual American soldier had no effective weapon at his disposal that he could use to engage and defeat an enemy armored target. Weapons such as the 2.36-inch rocket launcher ("Bazooka"), the 3.5-inch rocket launcher ("Super Bazooka"), the 57mm recoilless rifle, and the 75mm recoilless rifle were available at platoon and company level, but they were either heavy or not very effective, or both.

The production and fielding of a LAW began in the early 1960s. Originally fielded to replace the 3.5-inch rocket launcher, the LAW gave every soldier a much-needed short range, effective antiarmor weapon. It was about this same time that the Army fielded the 90mm recoilless rifle as a medium range antiarmor weapon. The LAW was never intended to replace the 90mm rifle, only to complement it.

The first LAW was a 66mm, self-contained, disposable weapon designed to be effective at ranges out to 200 meters. Many could be issued. In a

secondary role, the LAW was to be used as an assault weapon against bunkers and fortified positions.

The M72A1 LAW was a good system and, for the most part, performed as expected. But it had some problems that had to be corrected, some of which involved its reliability, accuracy, and range. Recognizing these problems, the Army began a program to improve the weapon. The result was the M72A2 LAW.

This weapon gave the infantryman an increased probability of hit, more reliability, and greater warhead performance. And although it is still in the Army's inventory today, it is not without its problems.

For this reason, the Army improved the M72A2 into the LAW's most current configuration, the M72A3. This latest version, with its shaped charge warhead, provides good penetration of rolled homogeneous armor (RHA), is lightweight and one-man portable, and is effective at ranges out to 200 meters.

The M72A3 is effective against the older Threat tanks such as the T54/55 and T62. Although the more current Threat tanks have been hardened to the point where it is not technically possible for a LAW to defeat them from the front, it can be used effectively against them if top, side, and rear shots are used. Thus, the primary target for the current and any future LAW will be lightly armored vehicles.

Recognizing that the M72A3 LAW, like the earlier versions, had certain shortcomings, the Army started a program in the 1970s to replace it. The program, called the Improved Light Antitank/Assault Weapon, or ILAW, hoped to develop a weapon that would defeat up to 14 inches of armor at ranges out to 300 meters. The weapon was to be light in weight and capable of being used anywhere in the world.

From 1975 until the fall of 1983 the VIPER was developed to meet the ILAW requirements. But during the summer of 1983, as the result of a test that evaluated the VIPER against other available lightweight antiarmor weapons, the Army decided to end the VIPER program and to continue

testing the AT4, a Swedish-made weapon. At the same time, however, it was decided to improve the performance of the M72A3.

The AT4 weighs 14 pounds and is 39 inches long. It offers good penetration, range, and hit probability. It



The AT4

is not a free-flight rocket system like the M72A3; it is actually a recoilless rifle similar to the *Carl Gustaf*. (See INFANTRY, March-April 1984, pages 20-21.)

The M72A3 product improvement, or M72E4, is designed to increase the range, accuracy, and reliability of the current LAW. It will remain a lightweight system at about seven pounds.

In August 1985, a decision will be made either to continue the M72 series or to procure the AT4. But as with any concept in the combat developments area, the desire to provide the infantryman with the best available LAW will not end with the fielding of the M72E4 or the AT4. Research is already under way to determine how these weapons can be further improved to provide infantrymen with a better multipurpose system. Improvements in performance against bunkers and fortifications, while retaining or increasing the weapons' ability to defeat lightly armored vehicles, are being examined. Efforts will continue to insure that the infantryman is given the best possible LAW.

• **Improvements to the M113 Family of Vehicles.** As we near the 1990s, it has become apparent that the M113 family of vehicles requires upgrading. Today, the M113 cannot keep up with the Bradley fighting vehicle or with the

M1 Abrams tank, and it does not have the same survival capability as the Bradley.

Accordingly, a block modification program has been developed to overcome these problems. First, a reliability improved selected equipment (RISE) power plant has been designed and tested. The key element is a 275-horsepower engine that will give better power for operation both on and off the road.

Armored external fuel cells have been added as well as Kevlar spall liners. Both items have been tested and have demonstrated that they can reduce the probability of vehicular fires and provide increased crew protection against chemical energy warhead attack.

The block modifications and the continuing product improvements to the M113 will keep these vehicles "fit to fight" in the battles of the future.

• **Separate Infantry Brigade (Light) (SIBL).** A separate light infantry brigade (SIBL) is now being designed to fight the corps rear battle. It will have three infantry battalions plus the number of combat support and combat service support units needed to enable it to engage and defeat enemy incursions into the corps rear area. For the moment, the SIBL will be a Reserve Component unit, with one assigned to each Army corps.

The brigade's infantry battalions, modeled after airborne and air assault battalions, will have three rifle companies and an antiarmor company each. Each battalion will be completely mobile — using HM-MWVs — so that it can respond rapidly to an enemy incursion. The antiarmor company will have both TOWs and light kinetic energy antiarmor weapons in the 25mm or 30mm size.

Following DA approval, the Infantry School will become proponent for the SIBL in November 1985.

• **Mortars in Infantry Battalions.** Two levels of mortars in infantry battalions will be documented in TOEs during the next update. As a consequence of recent Department of the Army decisions, a two-tube, six-man



lightweight company mortar system — 60mm — will be added to the light infantry division's rifle companies. Because these rifle companies have no organic vehicles, these mortar sections will be extremely austere. Fire control equipment will be limited to M19 plotting boards and M2 compasses.

Additionally, the general support mortar platoon will change from the 4.2-inch to the improved 81mm mortar. Its structure, personnel, and vehicles will remain as currently documented. This same mortar organization will also appear in the new air assault and airborne battalion TOEs.

The mechanized infantry battalion's mortar structure will remain as it is today with only six 4.2-inch mortars in general support. The 120mm mortar is expected to replace the 4.2-inch mortar in the future.

• **VIPRA.** In an attempt to improve the safety of marching and running troops, road guards, and police details particularly during periods of low visibility, the Infantry School will evaluate a new reflective system called Vest Individual Protective Reflective Adjustable (VIPRA).

The system consists of a bright yellow triangular vest with arm and leg bands. Early tests using bicyclists, runners, and military policemen indicated that the VIPRA is brighter and more comfortable than the current equipment.

• **Soviet Field Fortifications.** Soviet doctrine emphasizes the use of the natural conditions of an area and its terrain features to fight a battle more successfully. When a defensive position is occupied ahead of time as a result of direct contact with an enemy force, construction usually begins with the development of one- and two-man emplacements that are later connected by fighting and communication trenches. These defensive positions provide a continuous firing position along a combat front, a protected means of moving troops and supplies, and protection from enemy small arms, mortar, and artillery fire.

In defensive combat, one-man foxholes are dug when troops are to occupy and reinforce positions in a

hurry. The one-man foxhole can initially be dug in one of three forms: prone, kneeling, or standing.

The multi-man position accommodates two or more men. Usually, a two-man position will have cover as well as firing positions for both men. Often, there will be a raised parapet and a firing step on at least one end. The raised parapet is usually constructed on the side nearest the enemy. The height of the raised portions of the parapet is about 24 inches, with firing ports made up of 12-inch high sections.

Emplacements for weapons and vehicles are constructed to protect them and their crews as much as possible, thereby enabling the crew members to more successfully fulfill their mission. One of these emplacements consists of a position for firing purposes, concealment or cover for the crew members, a ramp for entering and leaving, a parapet, and recesses for ammunition. Depending on the assigned mission of the terrain, the emplacements usually will be constructed with a limited field of fire. When the time, forces, means, and terrain allow, an emplacement that permits a circular field of fire is constructed next to the position with the limited field of fire. The decision on which type field of fire is to be constructed is made by the commander on the ground after a study of the terrain on which the position is to be located.

• **Drop Zone Assembly Aid System.** The Directorate is working on the development of a drop zone assembly aid system (DZAAS). It will consist of small, lightweight, electronic transmitters and receivers to help airborne forces assemble their personnel and key equipment more rapidly on drop zones.

The transmitters will be able to emit up to 25 separate electronic signals out to 1,500 meters. Those used to assemble personnel will be emplaced and activated at various assembly areas by the lead elements — pathfinders, advance parties, security parties, or the like — while those used to identify key equipment loads might be activated on

board the aircraft by the loadmaster or after the drop by personnel already on the ground.

The lightweight (wrist type) receivers will be worn by designated personnel in the main assault force and will be activated as prescribed by the unit SOPs, either just before or just after landing. These receivers will guide the personnel off the DZ to their specific assembly areas or to the key equipment loads.

It is expected that each transmitter will weigh less than five pounds and that each receiver will weigh less than 8 ounces.

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**THE ARMY HAS AUTHORIZED** its soldiers to wear the Vietnam-era jungle fatigues — the “hot weather uniform, OG 107.” Until now, that uniform has been available only to soldiers at selected installations for optional wear. It is now being made available to military clothing sales stores for purchase and wear on all CONUS installations as a field or utility uniform until September 1986.

The uniform may be worn throughout the year whenever the local commander prescribes a field or utility uniform. It may not be worn when a specific uniform is required for wear during a ceremony, a formation, or a special occasion. And it may not be worn during off-duty time or during travel periods, although soldiers may wear it when going between their quarters and their duty stations.

Local commanders cannot require their soldiers to wear this uniform unless the uniforms are issued as an organizational item, but those commanders must offer their soldiers every opportunity to wear the uniform should they buy one.

Drill sergeants and others serving in an initial entry training unit are not authorized to wear this uniform.







## Heavy-Light Forces: Divisions or Brigades?

LIEUTENANT COLONEL CLAYTON R. NEWELL

For centuries soldiers have studied the question of the best way to mix heavy and light forces on the battlefield. Recently, the question has taken on new significance in the U.S. Army. For example, the employment of mixed heavy and light forces in Europe is the subject of three articles in the July-August 1984 issue of *INFANTRY* (pages 10-22). These "heavy-light" articles, written by experienced infantrymen commanding at various levels in USAREUR (U.S. Army Europe), provide a preview of how those commanders might mix light infantry forces with their heavy forces.

Previously, however, the Army published its White Paper 1984, entitled *Light Infantry Divisions*. It contains the Army leadership's plan for the development of its new light infantry divisions. Surprisingly, though, a comparison of that plan with the apparent plans of the commanders who wrote the "heavy-light" articles reveals a significant difference in approach: The White Paper describes the characteristics, formation, manning, training, equipping, and sustaining of light infantry *divisions*, while the USAREUR commanders describe the tactical employment of light infantry *brigades* and *battalions*.

This difference is more than semantic. In the first of the three "heavy-light" articles, Lieutenant General John R. Galvin, VII Corps commander, begins his tactical discussions with the assumption that the corps commander will have the authority to break a light infantry division into smaller parts when it is deployed to Europe. The tactical scenarios in his article and the other two focus primarily on the employment of those smaller parts — the brigades and the battalions.

These tactical scenarios, all set in typical Central European terrain, employ light infantry to defend in close terrain such as urban areas and forests. Using light infantry in this manner frees the armor and mechanized infantry forces to engage the enemy in open terrain. And this approach is a proper one: While light infantry forces are not generally suited to stand and fight heavily armored forces in the open, once dug in they can hold close terrain indefinitely.

Emphasizing the advantages of light infantry in close terrain, however, argues against the light infantry division as it is described in the White Paper, because the close terrain of Central Europe is not all in one place so that it can be defended by

light infantry divisions. It is scattered about, surrounded by open terrain, thereby lending itself to defense by brigades and smaller units. And the writers of the "heavy-light" articles accurately portray that situation.

The difference between the goal of the White Paper and the planned employment of light infantry units in Europe is one of organization. The question raised is not whether the Army needs light infantry but whether it needs light infantry *divisions*.

A recent article on Army force design, in fact, proposes that the brigade replace the division as the basic interchangeable part of the Army force structure. (See "FM 100-5: Conceptual Models and Force Design," by Majors James M. Dubik and James J. Montano, *Military Review*, July 1984, pp. 16-26.) The authors argue that by forming a variety of separate brigades the Army could tailor its divisions to specific missions and terrain better than is currently possible. In the case of light infantry employment, the tactical thinking in Europe, as represented by the *INFANTRY* articles, seems to support this proposal.

Using brigades and smaller units to augment the heavy forces stationed in Europe instead of committing light in-

fantry divisions as integral units is a sensible approach. But it will destroy the cohesiveness that is supposed to be an inherent part of the light infantry division as the White Paper describes it.

Light infantry can be effective in a European war, but if the commanders on the ground want to use it in pieces smaller than a division, then a better approach might be to build light infantry brigades in the first place. These brigades could then be

employed as integral units in consonance with the plans of our USAREUR commanders. Certainly, light infantry brigades that were designed to fight independently would provide a stronger overall force than the same number of brigades trying to fight as pieces of a broken division.

In Army force design, form must follow function. When organizing new units such as light infantry, the first consideration must be its planned employment — its clearly defined

role — on the battlefield. The innovative employment of infantry has always been the key to success in battle. Its imaginative organization today could prevent time-wasting reorganization on the battlefield tomorrow.

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Lieutenant Colonel Clayton R. Newell, an Infantry officer, is assigned to the U.S. Army Concepts Analysis Agency, where he works on force development studies. He has served in light infantry battalions in Vietnam and in a mechanized infantry division in Europe.

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# Heavy-Light Forces:

## Assessing the Challenge

JAMES B. MOTLEY

In the July-August 1984 issue of *INFANTRY*, Lieutenant General John R. Galvin, the VII Corps commander, presented an excellent discussion of the reinforcing missions that light infantry divisions might assume in the early phases of a mobilization to meet an impending Warsaw Pact attack in Europe. I would like to expand further on the issue of heavy-light forces. (Portions of this article will appear in a more detailed and comprehensive treatment of low-intensity conflict in a forthcoming issue of *MILITARY REVIEW*.)

Current U.S. defense policy and general-purpose force structure and modernization programs continue to focus heavily on a NATO contingency — a contingency that is increasingly inappropriate, given the global power shifts now under way and the newly identifiable threats now developing in other areas. A critical assessment of the political and military realities affecting international security reveals:

- The increasing frequency and intensity of terrorist incidents as a

means of obtaining political goals.

- The armed forces of at least 36 countries — one in five of the world's nations — involved in military opera-

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**“The nature of warfare today is such that we cannot await the outbreak of hostilities before initiating suitable and necessary military preparations, especially in light of the military power other nations — particularly the Soviet Union — maintain in constant readiness.”**

**John O. Marsh, Jr.  
Secretary of the Army**

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tions, more than 30 of which involve revolutionary or separatist insurgencies.

- Increasing Soviet-Cuban involvement in Central America.

- Little hope for the early cessation of the Iran-Iraq war.

- The continued Soviet occupation of Afghanistan and the buildup of Soviet forces along the Afghanistan-Pakistan border.

It is evident then that the type of warfare the Army will face for the remainder of this century is unlikely to be the traditional NATO/Warsaw Pact scenario (World War II military operations but with more sophisticated technology). Rather, it is likely to involve the use of combat force at the lower end of the conflict spectrum. (“Low-intensity conflict” is the term currently in vogue to describe this range of activities. Other terms, often used synonymously, include “small or minor wars,” “low-level violence,” and “limited contingencies.”) The Army will face many types of low-intensity challenges over the next decade. It must suffice here to say only that such military operations will be limited in scope, confined principally to the Third World, and directed toward accomplishing limited political-military goals.

The low-intensity battlefields of the



future, therefore, will require smaller, more flexible, and more strategically responsive Army forces — forces that are organized to respond to a broad spectrum of combat operations and a wide array of contingencies. Such forces must be equipped so that they can be sustained in regions where there are limited support facilities or no U.S. or allied bases.

Preparing for low-intensity conflict does not mean that the Army must forego military innovation and modernization. Technology and the military threat are growing too fast for that. It does require, however, that a more concerted effort be made to improve the Army's military capabilities for low-intensity conflict. Such an effort will require some shifting of resources, priorities, and emphasis (special operations are an excellent example) from the short, intensive, European-war scenario to power projection and Third World intervention capabilities. And these shifts must be made while continuing, and in some instances increasing, security assistance and arms transfers to critical U.S. allies and to Third World countries.

The various types of contingencies for which the Army must prepare — engaging an enemy at levels of conflict ranging from counterterrorist operations to full-scale conventional or nuclear war — will require forces of various sizes and capabilities.

## PROGRESSIVELY HEAVIER

From the end of World War II, the Army's force structure became progressively heavier. There were several reasons why that was so:

- The need to counter the long-standing conventional force advantages of the Soviets and the other Warsaw Pact nations.
- The general trend toward mechanization and modernization.
- The shift in focus to the NATO battlefield in the post-Vietnam era.

Thus it has been difficult for the Army to design its doctrine and its light forces to respond to low-intensity

conflict, because it has not been in the Army's fundamental interests to do so. After all, light infantry, Airborne, Ranger, and Special Forces units must compete for resources with major weapon programs. Now, for example, seven major new weapon systems — all of which are more suited to mid- and high-intensity conflict — are in the process of being introduced into the Army. The M1 Abrams tank, the Bradley fighting vehicle, the Apache attack helicopter, the Blackhawk utility helicopter, the multiple-launch rocket system, the Patriot air defense missile system, and the Sergeant York division air defense gun.

Until recently, in fact, the traditional Army establishment has resisted the creation of additional forces to respond to the challenges of low-intensity conflict. At least four factors, however, have focused new attention on the importance of such forces. One is the steady proliferation of U.S. commitments throughout the Third World, which requires forces with greater strategic and tactical utility (a basic premise behind the creation of the light infantry division). A second factor is a principal conclusion of a report entitled "Strategic Requirements for the Army for the Year 2000" that low-intensity conflict — psychological warfare, high-technology terrorism, Soviet-supported revolutions, urban guerrilla warfare, and more conventional proxy wars — will constitute the greatest challenge to the Army during the 1990s. A third factor is the success of the light forces in the U.S. military operations in Grenada. The final factor that has focused attention on these forces is Secretary of Defense Caspar Weinberger's statement in his FY 1985 Annual Report to the Congress that "the high priority we have assigned to SOF (Special Operations Forces) revitalization reflects our recognition that low-level conflict . . . will pose the threat we are most likely to encounter throughout the end of this century."

Accordingly, the Army has initiated a number of changes designed to deal with the warfare of the future. These include the conversion of the 7th In-

fantry Division to the light infantry organization; the activation of a seventeenth active component division, which is to be based on the light division design; the addition of a third Ranger battalion; and the activation of a new Special Forces Group. The reassessment of the role of light forces is a step in the right direction, if the Army is to meet the challenges of the next decade.

## CHALLENGES

The emerging international security environment requires Army forces that are capable of responding to unconventional challenges. In recent years, the Soviet Union's primary military activity in the Third World has been in the areas surrounding the U.S.S.R. — eastern Europe, the Middle East, Mongolia, and the Far East, and, most recently, Afghanistan. But Soviet achievements in the Third World for the foreseeable future are likely to be pursued farther and farther from the Soviet homeland and are likely to be pursued more assertively. Thus, a continual, detailed review of the Army's doctrine, its strategy, and its forces is required if the Army is to be prepared for situations that are likely to affect U.S. interests.

In sum, the Army's heavy-light force structuring needs to be thoughtfully and pragmatically assessed. United States political-military goals, the threat, a clear understanding and appreciation of military power, and the recognition of resource limitations must all be factored into the Army's calculations regarding the best mix of these heavy and light forces.

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**James B. Motley**, a retired Infantry colonel, is a senior military analyst with the National Institute for Public Policy. During his 24 years of Army service, he had diverse command and operational experience with airborne, Special Forces, Ranger, air-mobile, light infantry, and mechanized infantry. He has published extensively on the subjects of low-intensity conflict, Soviet studies, NATO affairs, and arms control.

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# Interoperability with Egyptian Forces

LIEUTENANT COLONEL WOLF D. KUTTER

MAJOR GLENN M. HARNED

In the NATO community, much progress has been made in the area of interoperability, or the ability of two armies to operate together on the modern battlefield. From the development of Standard NATO Agreements (STANAGs) to face-to-face coordination between partnership units at battalion level and below, procedures are largely in place to overcome national differences in organization, equipment, and doctrine. To a lesser degree, the same can be said of the interoperability procedures between United States and Republic of Korea (ROK) forces.

In the U.S. Central Command (CENTCOM) area, however, there is no established interoperability doctrine. As a result, the lessons learned in past exercises have been largely lost to all but those who originally learned them. When the 101st Airborne Division (Air Assault) deployed Task Force Desert Eagle (of which we were a part) to Egypt in August 1983 to participate in Exercise BRIGHT STAR 83, a major objective of the task force was to develop and document procedures for interoperability with the Egyptian armed forces.

Over the course of a three-week period that included extensive counterpart training and a four-day combined FTX, members of the task force developed rewarding relationships with elements of an Egyptian Army airborne brigade and with an Egyptian Air Force helicopter squadron. The foundation for these

relationships was made up of four tenets:

- **Partnership.** We treated each other as professional equals. The Egyptians shared their desert expertise with us, we shared U.S. technology with them. And we mutually shared doctrine, tactics, and techniques.

- **Honesty.** Discussions between counterparts were open, frank, and honest. Within the bounds of hospitality and courtesy, nothing was held back.

- **Cooperation.** Problems and differences were resolved jointly to achieve mutual satisfaction. Because both parties had a sincere interest in cooperating to make the exercise a success, each was willing to compromise and to make concessions when necessary.

- **Hospitality.** Hospitality and reciprocity of gifts, including public praise, were found to be vital to success in the Middle East.

All of this is not to say that combined operations were easy. Significant differences exist between the military systems of the United States and Egypt. These differences often caused frustration and less than the best performance by both forces, usually because somebody had made an inaccurate assumption about how his counterpart would act in a given situation. We found several major differences during our visit, but we also found ways of working around most of them. We hope that our observations here concerning these dif-

ferences will be of help to others who may deploy to Egypt in the future.

The Egyptians follow the Soviet doctrine of centralized decision making and are quite bureaucratic in their hierarchy. Rarely is a major decision made below brigade level, and staff decisions routinely require general officer approval before they can be acted upon. Highly structured operations schedules "drive the train"; even battalion commanders cannot modify them without the approval of higher headquarters. And once briefed to a higher Egyptian authority, a decision or an agreement is difficult to change.

Conversely, daily meetings are conducted to confirm the details of the next day's activities. Within an operations schedule, a battalion commander can decide how he will accomplish his mission. Such details, though, as uniform and equipment, reporting times and locations, movement times and routes are rarely pinned down until this meeting the day before the event, and there is no guarantee that subordinates will be informed of the decisions their superiors make at this meeting. If the operations schedule must be changed, or if some other decision is made that is outside the authority of the battalion commander, then the battalion commander must arrange a meeting with his brigade commander to secure his approval.

A similar process must be followed when dealing with an Egyptian staff. After an initial introductory meeting



with all parties present, there is a working session for action officers. Once the action officers reach some tentative agreements, several meetings are then held to secure approval of the plan. The senior Egyptian officer at each of these meetings approves those portions of the plan over which he has authority and then defers the remainder to his superior. The culmination of all this is a final meeting in which overall approval is given by an Egyptian general officer. This time-consuming process can be very frustrating for the U.S. officer who is accustomed to decentralized decision making with backbriefs to his superiors on how the operation will be conducted.

Americans also tend to be continually frustrated by the Egyptians' cultural time orientation, and Egyptians by the Americans' apparent obsession with punctuality. In the Middle East there is no cultural impetus to be on time. Egyptians may say they will arrive for a meeting "from nine o'clock" (meaning don't expect them before nine, but anytime thereafter) or they may say "between two and three o'clock." Exact times are not expected, or even important to them, and if something more pressing arises, they will simply not attend. But this difference should be expected and accepted as a cultural difference; it should not be taken as a personal affront.

When it comes to certain matters, however — matters such as air mission briefs, operations order briefs, and line of departure times, among others — every effort must be made to reinforce the idea that the appointed time must be met. It is also important for the Americans involved to be on time. For some reason, the Egyptians' tolerance for tardiness in themselves and others is not always extended to Americans. Perhaps this is because of our insistence on punctuality.

The Egyptians' small-unit light infantry tactics do not differ radically from our own. Their platoon and squad battle drill is similar to that in our own doctrine before we intro-

duced overwatch. In our exercise, we cross-attached U.S. and Egyptian rifle platoons with only minor difficulties. Although this degree of cross-attachment proved to be an excellent way of developing interoperability procedures and learning each other's systems, during actual combat it would be cumbersome. (In wartime, cross-attachment should not occur below battalion level.)

## MAPS

The Egyptians use Soviet graphics and prefer them to ours in the belief that they are simpler and do not clutter the map and also that they seem to convey a sense of dynamics that is missing from NATO graphics. Normally, the friendly force is depicted in red, the opposing force in blue. For a phased operation, however, the friendly force may be depicted in a different color for each phase. As in the Soviet system, maps are treated as classified intelligence documents and are not widely disseminated. Usually, the Egyptians draw their graphics directly on their maps, even at brigade level. (Acetate is extremely rare in the Egyptian Army and therefore makes a prized gift.)

The FM communication equipment of the U.S. and Egyptian forces will net (they use the AN/PRC77), but radio-telephone procedures and communication-electronics operation instructions (CEOI) are completely alien to each other. The Egyptians use only one FM net at battalion level, call each other by name over the radio, and employ fixed radio frequencies (at least in peacetime). They use AM single side band radios for long-range communications and also extend the range of their AN/PRC77s by laying a doublet antenna on the ground and transmitting.

They have no battalion tactical operations center as we know it. The Egyptian battalion commander is truly his own S-3. With one captain and two radio-telephone operators to assist him, he controls and employs the battalion. The system is effective

for simple operations, but it quickly becomes overloaded and overextended. This weakness, worsened by the centralized decision-making process, would seem to be a distinct liability in a fast-paced war.

The Egyptian training system is completely different from ours, and this fact initially caused some problems during our counterpart training. In the Egyptian Army, as in the Soviet system, the battalion commander is expected to be an expert in every aspect of battalion operations. He trains his officers, who then train the soldiers.

In our exercise, therefore, the Egyptian officers insisted on being trained first by U.S. instructors, so that only they conducted formal training for their soldiers. (The use of the NCO as a trainer was virtually nonexistent.) The result was a three-phased counterpart training program that worked quite well. We used our officers and senior NCOs to train the Egyptian officers, but not before the U.S. officer had demonstrated to the Egyptian battalion commander what would be taught so that he could brief his officers before the formal training began. Once the officers had been trained, time was allotted for the Egyptian officers to teach their soldiers and drill them until they achieved an acceptable level of performance. This system worked best if the time sequencing of the three phases was confirmed at the meeting the day before.

Most of the Egyptian Army's field grade officers we encountered spoke and understood English to varying degrees. Even so, when speaking with Egyptian officers, we could not assume that the message received was the same one that was being transmitted, in either direction. It is best for the receiver in such a conversation to restate the important points in his own words so that the sender can confirm that his message has been understood.

We soon learned that certain English words had meanings to the Egyptians that were different from the usual English connotations. For example, to them "to make coopera-



tion" means "to coordinate." "Demonstration" invariably means there will be VIPs present (brigadier general or higher), with no hands-on training to follow, and that refreshments will be served in a tent erected for officer-observers. "Tactical training" can be "without ammunition," with "false ammunition" (blanks), or with live ammunition.

The Egyptians admired our unit for its vigorous PT program. When we first arrived, our counterparts were concerned that we might not be acclimatized to the Egyptian summer. From the first road march, however, our soldiers met or exceeded any standard set by the Egyptians. (We gained a real psychological advantage because of our predeployment physical conditioning in the humid afternoon heat back at Fort Campbell.)

Another cultural difference arose in regard to the 13 female soldiers who deployed to Egypt as part of Task Force Desert Eagle. Given the subservient role of women in Middle Eastern culture, it is not surprising that they created quite a stir. The initial guidance given our advance party

was that U.S. female soldiers, regardless of rank, would not speak to, or even look directly into the eyes of, any Egyptian man; that they would not wear shorts, even in PT formation; and other similar rules. This was clearly unacceptable, and the guidance was quickly revoked. Our Egyptian counterparts apparently had difficulty believing that our female soldiers were not camp followers. But by the end of the exercise — after much discussion and after the Egyptians had participated in night air assaults flown by both male and female Blackhawk pilots — the professional status of our female soldiers was understood (if not accepted as anything more than a cultural difference), at least by the Egyptian officers.

During BRIGHT STAR 83, the development of good will, mutual understanding, and interoperability procedures was just as important to the U.S. Army as the tactics we employed or the techniques our soldiers learned. Our leaders at all levels had to be flexible in their thinking and sensitive to the political and cultural implications of their words and ac-

tions. By all accounts, Task Force Desert Eagle succeeded, both tactically in the desert and politically in both nations. We hope whatever strides we made toward interoperability will help future CENTCOM elements that may deploy to the Middle East for combined operations and training.



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**Major Glenn M. Harned**, a 1972 ROTC graduate of the University of Pennsylvania, was S3 of Task Force Desert Eagle during BRIGHT STAR 83. His previous assignments include service with the 1st Cavalry Division at Fort Hood and the Special Forces Detachment (Airborne), Europe in Germany.

# BTMS in a Headquarters Company

**CAPTAIN TAMAS F. DREILINGER**

The Battalion Training Management System (BTMS) is designed to simplify the training of every soldier, from individual skills through unit ARTEPs. To accomplish this mission, the system employs a multi-tiered system of teaching, with the immediate supervisor being responsible for the training of his subordinates.

The system is ideal for some units, those in which the senior trainer, at

one time or another, has done the jobs of his subordinates. But while most infantry company first sergeants have been squad leaders and platoon sergeants, few PAC supervisors have ever been chaplain's assistants.

Not long ago, I served for 14 months as commander of a headquarters troop in an air cavalry squadron. During that time, I faced some of the pitfalls of implementing BTMS in

a headquarters outfit. (There were 22 separate MOSs in the troop, many with a density of only one or two.) The very nature of a headquarters complicates the challenge, because the desires of the company commander and the first sergeant must be balanced with the operational needs of the various staff agencies as they implement the battalion commander's guidance.

**MAJOR TASK**

**FM 21-2 Task #071-326-5703 — Construct Individual Fighting Position.**

**SUB-TASKS**

**FM 21-2 Task #071-326-0513 — Select Temporary Fighting Position.**

**FM 21-2 Task #051-191-1361 — Camouflage Yourself and Your Individual Equipment.**

**FM 21-2 Task #051-202-1363 — Camouflage Your Defensive Position.**

**FM 21-2 Task #071-331-0852 — Clear Fields of Fire.**

**LEADER TASKS**

**FM 21-3 Task #071-326-5704 — Supervise/Evaluate Construction of a Fighting Position.**

**FM 21-3 Task #071-326-5710 — Designate Fighting Positions for Squad Members.**

**FM 21-3 Task #071-326-5701 — Supervise the Preparation of a Squad-sized Element's Defensive Position.**

**FM 21-3 Task #071-326-5725 — Direct Squad-sized Element's Fires in the Defense.**

Perhaps the solution I developed will be useful to others who find themselves in command of a headquarters outfit.

First, Soldier's Manual tasks can be divided into two broad categories: common skills and MOS specific skills. Time was the major stumbling block I encountered in trying to see that my soldiers were trained in both. I had no doubt that my soldiers spent a full duty day working at their jobs and that they were receiving MOS training in the process. Fortunately, I found it easy to convince the heads of the staff sections that some specific Soldier's Manual tasks related to each soldier's daily duties. In fact, we dedicated two hours each week to training in those tasks, with the tasks for each section determined by the section heads. Each section provided my training NCO with a quarterly training schedule showing the tasks, by MOS and skill level, that were to be taught during a particular quarter. There was enough flexibility in this arrangement for change — if my first sergeant noticed that leave forms were not being prepared properly, for example, additional training in that area could be programmed in the allotted time.

But my efforts to set aside duty time for training the soldiers in common skills were met with less than total enthusiasm. Mandatory training, for-

mations, equipment maintenance periods, and weapon qualification already disrupted the day-to-day functioning of the staff sections and caused a great deal of overtime. This left no time for any additional training. Yet my major duty was to ensure the combat readiness of every soldier. I soon realized, after studying the common task manuals, Field Manuals 21-2 and 21-3, that most of the tasks were simple to teach and easy to learn. In fact a soldier could teach himself many of them. From that, we developed our task-of-the-day program.

The idea behind this program was just that simple: Each soldier would study the task selected for his skill level for any given day and demonstrate proficiency in the task to his immediate supervisor before the close of business. My first sergeant and I would quiz the soldiers and their supervisors on the subject matter to see that they were complying. After six months of this system, the troop would conduct a military stakes test. In this test the soldiers would have to demonstrate their proficiency in previously scheduled tasks at different stations in the round-robin event.

After I was satisfied that most of the soldiers could do the assigned tasks, the training moved to a more structured, one-hour-per-week demonstration of tasks that required more

preparation. Accordingly, our task-of-the-week was intended to evaluate a soldier's performance as well as his first line supervisor's abilities to ensure satisfactory performance. Each of our 13 staff agencies had a specific one-hour block of time during which the section as a whole demonstrated their knowledge of the subject matter to the first sergeant or me. The soldiers would already have been taught the associated sub-tasks; the session itself was designed as the diagnostic "hands on" evaluation of performance. (The accompanying outline may serve to clarify the system.)

A soldier, having been instructed on the major task and the associated sub-tasks, would demonstrate proficiency in those tasks during the session, in the context of an established scenario. In my role as the commander, I would evaluate not only the soldier but also the supervisor in his performance of the leader tasks. The scenario itself was "real-world," complete with a mission and situation, and this enabled a soldier to understand how each task was woven with the others to accomplish the mission. The training site was easy to set up, and the training itself was simple to conduct and evaluate.

With any system, the proof of its success or failure lies in the performance of duties under actual conditions. The performance of the soldiers on their skill qualification tests and the performance of the troop during three field training exercises indicated to both the soldier and his chain of command that the task-of-the-day program was a success. The training objective was met using realistic, hands-on training, without robbing the staff agencies of valuable time and energy.



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CAPTAIN DAVID F. McDERMOTT

## The Invasion of afghanistan

The Soviet invasion of Afghanistan in December 1979 was well planned and ruthlessly executed. Soviet airborne units quickly consolidated their hold on the capital city of Kabul and moved swiftly to seize and occupy key government administration and communication centers. Simultaneously, Soviet ground force divisions, operating from secured assembly areas and with air cover, surged across the border along widely separated axes of advance. As these divisions penetrated deep into Afghan territory, the Soviet airborne forces moved toward them to link up and divide the country in two. A series of psychological and covert operations had subverted and neutralized potential resistance to the Soviet forces. Within a month, the Soviets occupied the country's major population centers, crushed civilian opposition, and installed a puppet regime.

It is not surprising that the invasion, which saw the employment of massive combined arms forces, succeeded so well, because the Soviet military forces had been well organized and trained for such an operation. After all, the successful invasion of Czechoslovakia in 1968 had been remarkably similar. The invasion of Afghanistan is now history, having been only the beginning rather than the end of an arduous guerrilla war. But it illustrates the extent to which the Soviet High Command attempts to integrate both political and military considerations into what has been described as a "lightning surgical thrust."

Soviet interest in Afghanistan dates back to the 19th century when Russia, as well as Great Britain, engaged in what has been called the "Great Game." There has been considerable speculation about why the Soviets decided to invade Afghanistan in 1979. One commentator has suggested that part of the Soviets' motivation lay in their fear that Moscow's grip on a nearby ally was weakening in the wake of Afghan rebel (Mujahideen) successes in the field. The Soviets also feared that the subversive influence of Islamic fundamentalist victories in Afghanistan might spread across the international border into the predominantly Islamic Soviet Central Asian Republics. (Indeed, in March 1984 there was a report that an airstrip at Pyandzh in the Soviet Union — one that was being used to support helicopters operating against targets in Afghanistan — had been attacked by Mujahideen using rockets and mortars. Before that incident, Mujahideen agit-prop teams had crossed regularly into the Soviet Union from Afghanistan to proselytize for their cause among Soviet Moslems there.)

As part of the pre-invasion preparations, General I. Pavlovsky visited Afghanistan between August and October 1979, and his mission was most likely to gather intelligence. If so, he may have received a significant amount of assistance from Soviet military and civilian advisors already based in Afghanistan. By September 1979 there were about 4,000 Soviet military advisors there. Regular Soviet military units, some equipped with Hind-D attack helicopters, had also made their presence



increasingly felt in Afghanistan. Soviet advisers, in fact, often flew combat missions in aircraft bearing Afghan Air Force markings.

Complementing this effort was the role of Soviet civilian advisors. One source has stated that as early as April 1978 "a considerable number of non-military Soviet Central Asians (had been) sent to Afghanistan . . . to service the new round of U.S.S.R.-Afghanistan contacts." These advisors had assumed responsible positions in the upper echelons of Afghanistan's government apparatus, and these positions had enabled them to address key Afghan social, political, and cultural issues. Coincidentally, this influx of civilian advisors peaked in November 1979, one month before the invasion, with the appointment of a new Soviet Ambassador to Afghanistan, Fikat Tabeev, an ethnic Tatar — and a Soviet Muslim. (This same source, however, discounts any involvement on the part of Soviet Central Asians in military operations prior to the December 1979 invasion.)

Despite a body of on-the-scene advisors, and despite the Soviets' experience in fighting Central Asian Islamic guerrillas (during the 1920s and 1930s), the Soviet leadership apparently did not have senior experts who were well-versed in the intricacies of Afghanistan and its tribes. It has been suggested that because of this deficiency the Soviets had misjudged the degree of resistance they would meet, especially in the rural areas, both during and after the invasion. If so, it was a deficiency that has cost them dearly since 1979.

During a visit to Moscow on 13 September 1979, the then-Afghan president Mohammed Taraki, met with Soviet officials who tried to persuade him to either demote or dismiss his prime minister, Hafizullah Amin. Amin, a hardliner in the Afghan government, had alienated much of the Afghan population through his brutal and repressive policies. Additionally, Taraki was warned by his Soviet hosts that Amin was plotting his overthrow, and following this meeting, Soviet officials arranged a meeting between Taraki and Babrak Karmal, another Afghan opponent of Amin.

It is quite possible that the Soviet Union, as a result of this latter meeting, committed itself to organizing or supporting an anti-Amin coup originally scheduled to take place on 14-15 September 1979. The purpose of the coup would have been to eliminate Amin and then to establish a more moderate coalition government led by Taraki and Karmal. To support this coup, the Soviet Union deployed a number of regular military formations along the Soviet-Afghan border and sent a 400-man airborne contingent to the strategically vital Bagram air force base 40 miles north of Kabul. For reasons that are uncertain, however, Amin struck first. On 14 September Taraki was attacked and wounded in the Darulaman presidential palace just outside Kabul. When he died of his wounds three days later, Amin became president.

The circumstances surrounding the abortive coup attempt are still a mystery. It has been alleged that the Soviet ambassador at the time, A. Puzanov, had been in-

volved in an attempt to assassinate Amin, but the extent of that involvement is unclear. In any event, the Soviet Union apparently decided to accept the outcome at least for the time being, while it intensified preparations for an invasion.

In late November or early December, the Soviet Politbureau sent First Deputy Minister of the Interior, Lieutenant General Viktor Paputin, to Kabul. Officially, his mission was to advise Amin on matters affecting counterinsurgency and internal security, possibly even to provide Amin with personal protection. Actually, Paputin's purpose was to establish contacts with opponents of Amin's government, particularly if they happened to be supporters of Karmal. While this was occurring, Soviet divisions were being mobilized in Turkmenistan with reservists being called to active duty. At the field headquarters of the 40th Army located in the Soviet Union at Termez, a satellite communication (SATCOM) link had been established to enable the Soviet First Deputy Defense Minister, Marshal Sergei Sokolov, to plan and direct the invasion while remaining in close contact with Moscow. (Considering the extremely sensitive nature of the entire operation, it is quite likely that KGB Government Signal Troops rather than the Soviet Army's Signal and Radio-Technical Troops manned and operated the SATCOM link.)

## SECURED ROADS

By mid-December, preparations were almost completed, but Soviet planners wanted to ensure that several strategically important road networks had been secured before they proceeded with the invasion. The principal road net that was essential to the operation's success was the "beltway" extending from Termez across the border into Afghanistan and then southward through the 8,000-foot high Salang Pass to Kabul (see map). From Kabul, this road net stretched westward through Farah and Herat, swinging northward toward Kushka and finally terminating at Mazar-i-Sharif near the Soviet border. To secure these roads, the Soviets dispatched advance elements of airborne units to Afghanistan before the invasion.

On 3 and 4 December the number of Soviet military transport flights into the air base at Bagram tripled. On 8 and 9 December a full strength airborne battalion, reportedly equipped with BMDs and artillery, was airlifted into Bagram. From there, it started to move north to seize and occupy the high ground in the vicinity of the Salang Pass. Simultaneously, several smaller airborne units were airlifted into the Kabul International Airport itself.

On 21 December a Soviet airborne regiment landed at Bagram and secured its hold on the entire airfield. At the same time, up to six ground force divisions were reported to be in place along the Soviet-Afghan border in the Turkistan and Central Asian Military districts.

One final factor had to be dealt with — the Afghan



armed forces. At the time, those forces numbered 100,000, most of them assigned to the army. Equipped with 500 T54/55 and 100 T62 tanks, the Afghan Army consisted of ten infantry divisions, three understrength armored divisions, three independent infantry brigades (variously referred to as commando, mountain, or para-troop brigades or regiments), and one artillery brigade, all of which were organized into three corps commands.

The 1st Afghan Corps had its headquarters in Kabul itself while the 2d and 3d Corps were headquartered in Kandahar and Paktia Provinces, respectively. The 10,000-man Afghan Air Force had 170 combat aircraft, mostly older models (35 MIG-21s, 80 MIG-17s, 24 SU-7s, 30 IL-28s, and 45 helicopters of various makes) and one air defense division. To the Soviets, this formidable force, despite its mediocre performance in the field against the Mujahideen, would have to be neutralized quickly and efficiently.

Accounts of the deception measures employed by Soviet advisors to the Afghan Army do much to dispel the conventional stereotype of the Soviet officer as lacking in initiative and imagination. The tactics they employed, in fact, demonstrate a high degree of cunning and resourcefulness. For example, two Afghan armored divisions (one of which was stationed in Kabul) were disarmed when their Soviet advisors convinced their counterparts in the divisions that it was necessary for them to conduct an inventory of the division's ammunition stocks and antitank weapons. This meant off-loading the ammunition that was stored in the tanks. Additionally, electrical storage batteries "had" to be removed for winterizing while some tanks "had" to be turned over to depot maintenance so that "defects" could be corrected.

It has also been reported that in some units the Soviets persuaded the Afghans to turn in their weapons on the pretext that they were about to be re-equipped with new weapons coming from the Soviet Union. While some Afghan units were confined to their barracks, others, especially those in Kabul, were sent into the countryside to fight the Mujahideen. The coup de grace, however,

was a reception the Soviets held in Kabul to honor prominent Afghan army officers; once the reception began, none of these officers were allowed to leave.

The invasion began in full force on 24 December with an airlift of advance parties from the 103d and 104th Airborne Divisions into Bagram. At the same time and continuing through 26 December, a massive airlift of 280 to 300 military transport sorties landed the main body of the 105th Guards Airborne Division at the Kabul International Airport. The round-the-clock airlift primarily involved transport aircraft landing at ten-minute intervals — IL-76 CANDIDs (cargo capacity 90,000 pounds), AN-12 CUBs (cargo capacity 44,000 pounds), and a limited number of AN-22 COCKs (cargo capacity 160,000 pounds). In the latter stages of this airlift, the transports took sporadic sniper fire from rebel-held positions around the Kabul airport, and at least one transport aircraft, an AN-12, crashed on landing because small arms fire had damaged important flight instruments or injured the crew. (All the crewmen died in the crash and the aircraft was left badly damaged with its cockpit burned out.)

A number of IL-76s participating in the airlift had *Aeroflot* markings even though *Aeroflot* had officially cancelled regular flights into Kabul until the airlift had peaked. Older model AN-26 CURLs (cargo capacity 12,100 pounds) assisted the airlift, but only on a restricted basis. Even obsolescent AN-2 biplanes participated, serving as spotter aircraft for MI-24 HIND-D attack helicopters. Once the airlift had tapered off, regular *Aeroflot* service into Kabul resumed with all of the airline's aircraft bearing the legend "Official Olympic Carrier." Interestingly, the East German airline, *Interflug*, which had not previously conducted flights into Kabul, also participated in the early phases of the airlift. (It has been alleged that this airline, rather than *Aeroflot*, carried KGB agents from Poland and East Germany into Afghanistan.) For air cover, the airlift into Kabul received air support from MIG-23s based in Karshi and MIG-21s from Kerki, both located in the Soviet Union.

While the 105th Guards Airborne Division was consolidating its hold on the Kabul airport in preparation for a move against vital government centers, four Soviet divisions moved across the Soviet-Afghan border along two major axes. The first echelon consisted of the 360th Motorized Rifle Division (MRD) and the 357th MRD; while the 201st MRD and the 66th MRD were in the second echelon. The 360th and 201st MRDs crossed from Termez into Afghanistan using a pontoon bridge built across the Amu Darya River. Capturing the airbases at Mazar-i-Sharif and Kunduz, they moved toward Kabul with the mission of linking up with the paratroopers who had moved north from Kabul earlier to secure the Salang Pass and the tunnel through which these divisions had to move. The 357th and 66th MRDs crossed the border at Kushka and occupied the Shindad and Herat airbases. The fact that both echelons consisted of only two divisions was probably the result of a restricted road net that



could not accommodate a broader deployment.

The Afghan Army put up only sporadic resistance to these invading forces. Most of the Afghan Air Force, however, defected to the Soviets, and by early January 1980 Afghan pilots were flying training missions under Soviet ground control. The most notable anti-Soviet resistance on the part of the Afghan Army was that by the 8th Infantry Division, which successfully fought the Soviet forces until 5 January 1980, during which time it suffered 2,000 killed. For the most part, though, the Afghan Army suffered mass desertions, many to go home, others to the Mujahideen with their weapons and equipment. On 10 January 1980 this wave of desertions peaked when an entire Afghan division joined the rebels in Kandahar.

## AIRLIFT COMPLETE

By 27 December the Soviet airlift into Kabul was virtually complete with two full regiments belonging to the 105th Guards Airborne Division plus support units deployed on the ground, a total of 5,000 men. That evening, Soviet paratroopers equipped with BMD airborne infantry fighting vehicles and backed by ASU-85 85mm air-transportable armored self-propelled assault guns moved into Kabul itself to secure critical points in the city. Other airborne units, similarly equipped, moved to surround the Darulaman Palace. At Paputin's insistence, Amin had withdrawn here a few days earlier along with trusted aides and some of his bodyguards.

The Soviet assault on the presidential palace and Amin's subsequent death have raised many interesting questions about that evening in Kabul. Apparently, the Soviet forces in Kabul had the mission of deposing Amin and installing Karmal, who had been in exile in Czechoslovakia following Taraki's death, as the new president. Before the assault, Paputin once again met with Amin to try to persuade him either to step down from power or to issue a formal request for Soviet intervention in Afghanistan. What immediately followed is still unclear. Apparently, Amin refused to do either, and during the ensuing argument one of his bodyguards shot and killed Paputin. At 1930 on 27 December, Soviet troops began their attack on the palace, which was defended by an Afghan tank regiment.

Although most reports say that Soviet paratroopers participated in the action, one source, based on defector reports, tells a different story. According to this version, Soviet *Spetsnaz* troops led by a specially trained KGB assault group stormed the palace. This KGB unit, disguised in Afghan army uniforms and equipped with military vehicles bearing Afghan markings, killed Amin, his family, and several of his most important advisors. But during the confusion of the attack, the Soviet commander of this unit, a Colonel Bayerenov, the head of the KGB's terrorist training school, was inadvertently shot and killed by his own troops.

While this attack was taking place, pre-recorded radio broadcasts by Babrak Karmal were beamed into Afghanistan from the 40th Army headquarters as part of a disinformation campaign. These broadcasts, from a station identifying itself as Radio Kabul, announced the fall of Amin's government and requested Soviet military assistance in stabilizing the situation in the country. Similar broadcasts were made once Soviet troops had actually seized Radio Kabul. (Ironically, Karmal himself did not return to Afghanistan until four days after Amin's death.) Since Soviet troops had destroyed or occupied all of the radio, telephone, and telegraph facilities in Kabul, communications between the capital city and the outside world were controlled by Soviet signal and radio-technical troops.

Despite the apparent success of the coup itself, the timing of Amin's death was a diplomatic disaster for the Soviets. If Amin could have been persuaded to step down in favor of the more compliant Karmal, a request by Karmal for Soviet intervention would have provided some legitimacy to the invasion. As things turned out, Amin's death was viewed as an assassination by an occupying military force.

## LINK UP

Once the airborne units had seized control of the important facilities in Kabul, they moved northward mounted on BMDs with the mission of linking up with the advance elements of the 360th MRD, which were moving south from Termez. This maneuver caught rebel forces operating against the Termez-Kabul road in a pincer movement from which they had to withdraw or risk annihilation.

As the Soviets moved into the countryside to secure their lines of communication, they encountered stiffening resistance. In the northeastern portion of Afghanistan, approximately 5,000 Soviet troops became heavily involved in fighting for Feyzabad, Eshkashem, and Zibak in Badakhshan Province. Similar fighting broke out in the mountains north of Kabul and in the Logar Valley to the south of it. Additional fighting soon occurred in Paktia Province and along the road to Jalalabad.

By the middle of January 1980 the airlift had slowed its pace. The 40th Army field headquarters (minus its SATCOM terminals) had been relocated to Bagram air base. Also, two more divisions, the 54th MRD in the northwest and the 16th MRD in the northeast, entered Afghanistan. In an attempt to cover its move into Afghanistan, the 54th MRD left some dummy equipment at its previous location at Kizyl-Arvat near the Iranian border. By the end of January the Soviets had a force of seven divisions along with elements of two others (the 103d and 104th Airborne Divisions) in Afghanistan for a total of 90,000 men. The 6th MRD was reportedly preparing to enter Afghanistan while specialist units (communications, engineers, maintenance, for example) were being

transferred in from East Germany, Poland, Czechoslovakia, and Hungary. This move has been assessed as being one that was designed to replace conscript and reservist formations that were leaving Afghanistan for a variety of reasons — the most notorious being fraternization between Soviet Central Asian troops and the Islamic population of Afghanistan.

The exact nature of the role of Soviet Central Asian troops during the invasion of Afghanistan has been a matter of controversy for some time. One source has stated that these troops (primarily Tajiks, Uzbeks, and Turkomens) formed the bulk of the invasion force, although the officers involved were overwhelmingly European Soviets. If this is true, then as another report notes, the use of soldiers with the same ethnic, cultural, and religious ties as the target population represented a departure from past Soviet political-military policy. (Such a policy has attempted to avoid the use of non-Russian soldiers in operations designed to project Soviet power abroad in situations where they might have some type of rapport with the population of the invaded nation.)

The same report concludes that Central Asians were deployed to Afghanistan for three primary reasons: Since Central Asians generally man construction and support units in the Soviet Army, their presence in the military districts where the divisions were mobilized provided Soviet planners with a readily available manpower resource base, particularly for the establishment of a logistics and support infrastructure in Afghanistan; ethnic Slavic troops were not readily available to fill out understrength units mobilized in the Central Asian military districts; and the use of Central Asian troops may have been a propaganda ploy to weaken grass-roots resistance among the Afghan population.

As a propaganda ploy, the use of Central Asian troops was a failure since many of them openly fraternized with Afghan civilians. Many European-officered Soviet units manned by Central Asian troops had severe disciplinary problems. One incident, an extreme one at that, states that during January 1980 "all the personnel of a Soviet combat brigade [sic] were executed for refusing to fight fellow Moslems in Afghanistan."

The performance of Soviet Central Asian troops in Afghanistan has led to apprehension within Soviet leadership ranks that pro-Afghan, fundamentalist Islamic, nationalistic, and anti-Soviet ideologies could spread into the Soviet Union itself. For this reason, and the fact that the initial logistical support effort had been

completed, most of the Central Asian troops were withdrawn from Afghanistan by February 1980, although some may still be deployed in Afghanistan for purposes of installation security and convoy duty. Similarly, certain elite paratroop and *Spetsnaz* units may contain Central Asians who have been selected for their political reliability.

Despite this and other setbacks, the Soviets have continued to ruthlessly prosecute the war in Afghanistan against the Mujahideen. For the Soviets, nothing less than a totally favorable political settlement, possibly followed by troop withdrawals, seems to be acceptable. For now, the Soviet Union is prepared to settle for a long, drawn-out conflict in Afghanistan so long as its level of military commitment in that country remains manageable and does not significantly interfere with its commitments elsewhere. Its overall strategy involves the pacification, however brutal, of one region of the country at a time, in much the same manner as the Czarist regimes conquered the Central Asian tribes during the 19th century. The Mujahideen, for their part, have continued to resist the invaders and now discuss more frequently taking the war across the border into the Soviet Union itself. Their ultimate objective, in some instances, is the creation of conditions for a *jihad* — a holy war — among the Muslim population of the Soviet Central Asian Republics.

The Soviet invasion of Afghanistan was a unique development in that it was the first time in the post-World War II era that the Soviet Union had overtly invaded a sovereign nation not already under its tutelage.

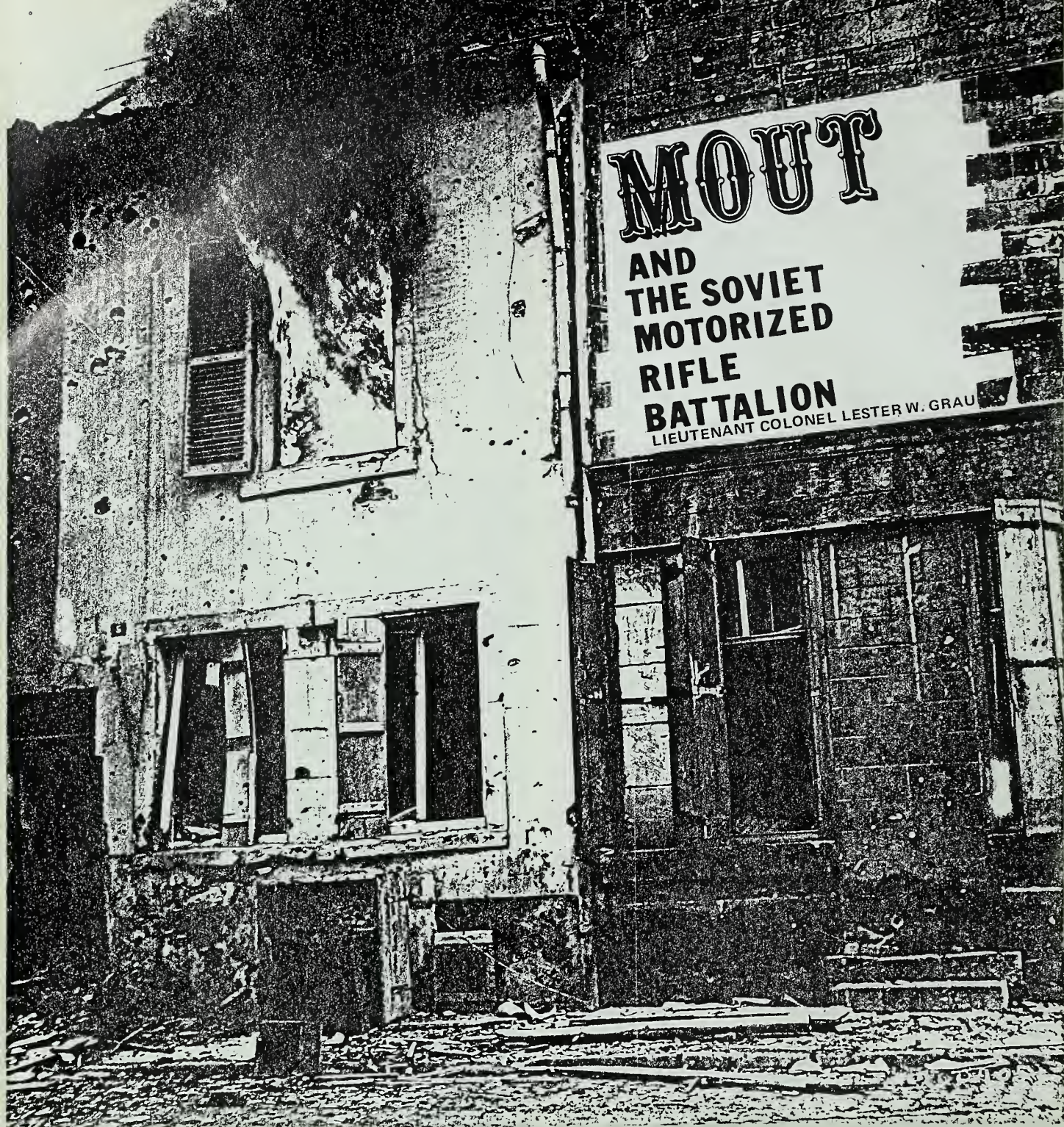
For all that has been and can be said about the fighting qualities and the effectiveness of the Soviet armed forces, the invasion of Afghanistan underscores the Soviets' willingness to use force in pursuit of their objectives, military or political. And this is a lesson the West cannot afford to ignore. Neither can the West afford to ignore the military lessons of Afghanistan, whether at the strategic, operational, or tactical level, because they provide deep insights into the Soviet theory and practice of war.



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After a decade of neglecting the subject of military operations in urban terrain (MOUT), the Soviets have recently begun to emphasize it again. The September 1982 issue of *Voyennyy Vestnik* (a combined arms magazine serving officers at company, battalion, and regimental levels) was devoted to the subject. And it is clear from these articles and others that infantrymen in the United States Army also need to be aware of the MOUT tactics of the Soviet motorized rifle battalion.

Combat operations on urban terrain in the past have usually been characterized by limited advances, limited

visibility, and marked increases in logistical requirements. Since these characteristics are the antithesis of modern, fast-paced mobile warfare, most commanders would now prefer to avoid such combat and to bypass urban terrain whenever possible. If warfare should break out in western Europe between NATO and the Warsaw Pact nations, however, neither side will be able to avoid combat on urban terrain.

The terrain of western Europe is dominated by cities that have expanded since 1945 to connect with the suburbs of other cities, and these form significant



obstacles to the free movement of military forces. The Soviets' military doctrine stresses the achievement of a speedy victory in war—a doctrine they can adhere to only if they conduct and maintain a rapid, surprise thrust deep into their enemy's territory to neutralize his armies and paralyze his economy. Such an assault, of course, would be slowed considerably by towns and cities—particularly in cases where operational surprise had not been achieved and the enemy had had a chance to deploy his forces and to convert built-up areas into strongpoints.

It would be comforting for us to assume that any future land battle in the Federal Republic of Germany (FRG) would be fought on the rolling, fairly vacant, northern plains. Unfortunately, all of the logical invasion routes through the FRG pass through several major cities and population belts. Even the smaller towns and villages create terrain obstacles that frequently cannot be bypassed. Indeed, in the average U.S. brigade sector in Germany today there are approximately 25 villages, each with a population of 3,000 or less, and the average distance between these villages is only three and one-half kilometers. The road networks that connect these population centers would have to be used and it would be impossible to bypass many of them. Indeed, the Soviets may deliberately use "urban hugging tactics" to reduce their vulnerability to NATO nuclear strikes.

In short, it is clear that any future war in western Europe will not be conducted solely on rolling plains with 3,000-meter kill shots considered to be normal. And the Soviets realize this as well as we do. Even in 1971, Soviet General-Major Shovkolovich wrote that there were "one or two large cities for every 200-300 square kilometers," and that "in the course of an advance, forces will have to fight to seize a city every 40-60 kilometers." He also understood the importance of these cities to the economical and political life of the country and their consequent military importance in any future conflict.

The Soviets classify built-up areas in various ways—by shape, population, and perimeter. The relative importance of such areas is determined by their size, economic and political life, and location, and by the characteristics of their buildings. By Soviet definitions, a "large" city contains 100,000 or more inhabitants and has a perimeter of more than 25 kilometers; an "average" city has between 50,000 and 100,000 inhabitants with a perimeter of 12 to 25 kilometers; and a "small" city has fewer than 50,000 inhabitants and a perimeter of less than 15 kilometers. The Soviets further classify built-up areas by street patterns. (They classify actions against towns and villages as actions against strongpoints.)

The Soviets see nuclear weapons as being ideal for destroying built-up areas that can be bypassed and for destroying a town's economic potential. But they recognize, too, that the built-up area then becomes a massive obstacle to any future maneuvering they may need to do. Furthermore, economic, political, or tactical considerations may militate against the employment of nuclear weapons against built-up areas. Soviet com-

manders, therefore, may attempt to bypass, blockade, suppress or seize built-up areas.

A Soviet division that is advancing to contact or exploiting a breakthrough can be expected to deploy an advance security detachment of its advance guard. This detachment normally will consist of a motorized rifle battalion reinforced with an artillery battalion, a tank company, an engineer platoon, and an antiaircraft detachment. The advance security detachment normally will be employed 20 to 30 kilometers in front of its parent unit. If the enemy is retreating, the advance security detachment will try to advance on a route parallel to the retreat and attack the enemy to keep him from withdrawing into a built-up area. If the enemy is retreating in good order and is in sizable strength, the advance guard will try to overtake him and, instead of attacking, seize and occupy the undefended perimeter of an adjacent built-up area and prepare to defend it against the enemy's entry. In either instance, this tactic will allow the division to engage the enemy in open terrain. If the enemy is already in the built-up area, the Soviet division's advance security detachment can be given the mission of seizing all or part of that area.

Soviet tactics and U.S. tactics are similar for conducting operations in built-up areas in that both consider a hasty and a deliberate attack. Only the implementation of the two types of attack varies.

## HASTY ATTACK

In trying to seize a built-up area, the Soviets prefer to attack from the march, or immediately after enveloping the built-up area. This kind of attack is a rapid movement designed to achieve tactical surprise and to seize an undefended or a lightly defended area. The attackers try to avoid costly house-to-house fighting and to seize critical areas and installations within the built-up area.

A motorized rifle battalion that is involved in an attack from the march may be from the advance security detachment, the advance guard, the first or second echelon, or even the reserve, but most probably, it will be from the advance security detachment battalion. Although this battalion will usually attack as part of its regiment, it may be given an independent mission.

The regimental reconnaissance BRDMs and motorcycle elements will approach the built-up area and try to draw fire to determine the strength and the positions of the enemy. If this fails, the reconnaissance elements will advance until they come under effective fire, and then they will try to determine where the enemy's flanks are. Artillery strikes will be used against discovered positions on the edge of the built-up area. The lead motorized rifle platoon of the advance party that usually precedes the battalion will assault any discovered defensive positions to gain more information and to serve as a point unit to attract the defender's attention and fire. (The advance party itself normally consists of a motorized rifle com-





pany, an attached artillery battery, a tank platoon, and antitank, engineer, and chemical detachments.)

The regimental commander will then decide whether to envelop the area or take it by a frontal and flanking attack. The attack will be launched as rapidly as possible to achieve tactical surprise. The urban area will be sealed off (by ground, airborne, or airmobile forces) to prevent the enemy's withdrawal or reinforcement.

The regimental commander will then direct his advance detachment to move rapidly into the city and to capture and hold the important objectives until the main forces arrive. Short artillery strikes of five to twenty minutes in duration may be delivered on discovered positions as the attacking tank-infantry team moves into position.

Following the seizure of strongpoints on the edge of the built-up area, Soviet infantry and tanks will attempt to advance rapidly along the streets to seize important objectives within the built-up area. Dismounted infantry will follow a tank platoon (or a self-propelled artillery platoon) wedge in which one tank (or howitzer) moves down the center of the street to provide mutual fire support. Normally a squad of infantry will follow each tank (or howitzer), hugging the sides of the buildings and delivering small arms fire on the windows of buildings on the opposite side of the street. BMPs or BTRs may follow this force to provide additional firepower.

In case of weak resistance, infantry mounted on either tanks, personnel carriers, or trucks will speed along the

streets, firing on the move, to reach and seize the important objectives. Once the important structures and thoroughfares have been seized, pockets of resistance can be pinned down and bypassed, to be eliminated by follow-up forces.

## DELIBERATE ATTACK

If the attack from the march should fail, any areas already seized will be consolidated and preparations for a deliberate attack will begin.

The deliberate attack is characterized by detailed planning, thorough reconnaissance, isolation of the urban area, intensive artillery preparation, and the use of assault detachments (battalion strength) and assault groups (company strength).

The motorized rifle battalion is the basic unit for the urban battle. A battalion will normally attack along several parallel streets with a frontage of 400 to 600 meters (the width of two or three city blocks) and will normally have an initial objective of one or two blocks in depth. Ordinarily, the battalion will be assigned a direction of advance instead of subsequent objectives, and will normally attack in a single echelon; a second battalion may be in a second echelon to exploit any successful breaching operations. A company will normally attack in two echelons.

The battalion commander will control his attack in several ways: He will use detailed planning; identifiable, timed phase lines; and (because of the decreased reliability of radios in urban terrain) messengers and wire communications. In addition, he will position his command post well forward (normally within 200 meters of his forward positions).

The assault units usually will be organized into assault groups (each of which is capable of independent action). These assault groups will consist of one or more attacking elements (a motorized rifle platoon reinforced with a tank platoon, for example); a covering and consolidation element (a motorized rifle squad or platoon with antitank guns, grenade launchers, and medium mortars); a fire support element (artillery and heavy mortars); and an obstacle-clearing party (combat engineers and mine-sweeping tanks). A small reserve of one or two motorized rifle squads may be withheld to influence the action during the course of the attack. Chemical warfare and flamethrower personnel will be attached as needed.

Artillery preparation is vital to the success of a deliberate attack on urban terrain. Contrary to U.S. doctrine, up to 40 percent of Soviet artillery may be employed in direct fire roles; self-propelled artillery may even lead the assaults by serving as armor. Artillery will

be attached down to motorized rifle platoon level. Short, heavy preparatory fires (five to twenty minutes in duration) will be delivered to disrupt the enemy defenses, but care will be taken to avoid creating excessive rubble on the major thoroughfares. Under the cover of artillery and tank fire, the combat engineers will clear passages in the enemy's obstacles with mine-clearing tanks, explosives, bulldozers, grapples and winching gear, direct fire (including BM-21 multiple rocket launchers), breaching teams, and vehicular ramming.

Attacking troops will assault under the cover of artillery and smoke. When the assault group is within 150 meters of its objective, direct and indirect supporting fires will be shifted to the rear and the flanks of the buildings under attack. The riflemen will assault using automatic fire and hand grenades. The accompanying engineers will use explosives to clear positions.

Once the objective has been seized, it will immediately be prepared for defense against counterattack and used to support actions against neighboring buildings. Engineers will clear mines and booby traps from buildings and bring up defensive materials. Buildings on street corners or those that command large, open areas will be turned into strongpoints.

Finally, it should be noted that, when possible, the battalion will push its attack along streets to seize objectives and bypass pockets of resistance. These pockets of resistance will be dealt with by follow-up forces.

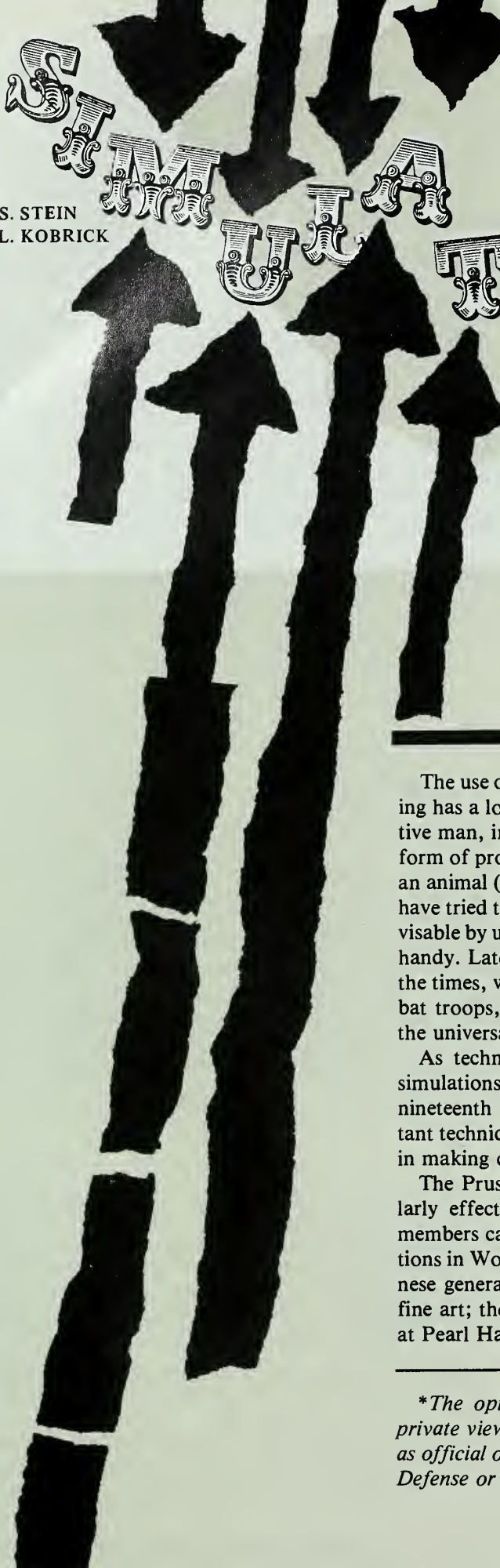
The Soviets in World War II suffered extremely heavy losses in their infantry and armor forces during their fighting in built-up areas, and they expect to take such losses in future urban engagements as well. They expect a battalion, for example, to suffer 70 percent losses before being relieved.

Our own Field Manual 90-10, Military Operations on Urbanized Terrain (MOUT), provides excellent guidance for meeting and defeating Warsaw Pact forces in urban combat. We infantrymen would do well to study that manual and to become as proficient in this type of warfare as we are in high-speed mechanized warfare. If we can't avoid combat in cities, and we probably can't, then we'd better be ready for the battles that we may have to fight there.



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EARL S. STEIN  
JOHN L. KOBRICK

# SIMULATIONS

## a brief history

The use of simulations in military operations and training has a longer history than many people realize. Primitive man, in fact, probably used simulated weapons as a form of protection: An unarmed caveman, threatened by an animal (or a stronger, more aggressive caveman), may have tried to convince his opponent that attack was inadvisable by using a stick to simulate the axe he did not have handy. Later, after the advent of firearms, the armies of the times, with only enough weapons to equip their combat troops, often trained their new troops using, again, the universal weapon simulator — the stick.

As technology and the magnitude of warfare grew, simulations also grew in size and complexity. During the nineteenth century, wargaming developed as an important technique for use in command and staff training and in making command decisions.\*

The Prussian general staff, for example, was particularly effective in using wargaming techniques, and its members carried their skills into German military operations in World War I. And in the ensuing years, the Japanese general staff developed wargame simulation into a fine art; the immense success won by the Japanese navy at Pearl Harbor in December 1941 was due partly to the

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*\*The opinions and assertions in this article are the private views of the authors and are not to be construed as official or as reflecting the views of the Department of Defense or any element of it.*

meticulous planning and wargaming the naval staffs had conducted before the attack.

Traditional wargaming such as this can be viewed as a low-technology form of simulation that involves boards, player pieces, and detailed rules. It focuses on planning and decision-making but does not require the kinds of physical coordination that are characteristic of the high-technology systems that came along later.

These high-technology systems have their roots in the advent of aviation in the early part of the twentieth century. During the build-up for World War I, the frequency of fatalities in flight training had made clear the need for better training techniques, and out of this need, primitive flight simulators evolved.

World War I vintage flight simulation was a low-technology affair at best, in which simulators were constructed from the materials at hand — in many cases little more than a stick and a chair. Still, such crude simulations as these must have helped in some way — probably by reducing the death and destruction that was then occurring in primary flight training. Otherwise, Army Air Corps trainers probably would have given up on simulations, and it is fortunate that they did not. Simulation for training has had to keep abreast of aviation technology ever since.

During the post-World War I period this technology resulted in the design of the first truly sophisticated trainer, the Link I. This device, affectionately nicknamed “the box,” incorporated pilot information displays and a basic movement platform, which would respond to the pilot’s control actions and then provide feedback on the results of those actions. The Link I was the forerunner of a long line of flight simulators. The more recent of these have also been used to conduct research dealing with the relationships between people and machines and also with person-to-person performance in a crew or team operation.

Before and during World War II the German Army used an assessment center concept to evaluate its leaders and officer candidates. The assessment center performed personnel evaluations using a unique blend of traditional psychological assessment tools, such as paper-and-pencil tests, and a series of situational exercises, or mini-simulations.

In similar fashion, the U.S. Army Office of Strategic Services (OSS) in 1942 established an assessment center in Virginia at a location it called Station S. There, a staff of psychologists and psychiatrists was given the job of developing tests that could be used to select OSS agents for overseas duty. The Army hoped that an assessment center model could produce a valid and reliable method for predicting the success of OSS agents, but the criteria for evaluating success were never properly defined. (In a book the OSS assessment center staff wrote later, they admitted that the validity of their predictions was difficult to determine since many of the agents who had passed successfully through the test program at Station S never returned from their assignments overseas.)

Since that time, the U.S. Army has continued to experiment with assessment centers and mini-simulations. The so-called Leader Reaction Course, which is now run at many Army service schools, was modeled after the OSS version. In this course young officers and NCOs are given a problem to solve in a limited time using a given set of resources and people — getting a squad of soldiers across a stream, for example. Performance on such a problem is usually measured on a rating scale administered by one rater, although many assessment center simulations use multiple raters to improve the reliability of the results.

The Army operated an assessment research center at Fort McClellan in the 1960s and also one at Fort Benning from 1972 to 1974. The center at Fort Benning was organized as a pilot research project sponsored by the Infantry School and supported by the Army Research Institute for the Behavioral Sciences (ARI). It was operated primarily by and for infantrymen, and although these infantry personnel knew very little about measuring behavior, they did have much to offer toward the development of simulations. In the Army tradition of making do with whatever was available, these infantry assessors designed simulations for a wide variety of tasks ranging from administration to leadership in field combat and developed role-playing exercises and group decision-making situations. (It is important to note that other allied military forces, particularly the Israeli and British Armies, have become interested in assessment simulations. The British, in fact, now screen all of their enlistees before assigning them to specialized training. They also use their assessment centers to select candidates for the National Military College at Sandhurst.)

Although the Army’s work with assessment centers did not produce models for making long-term predictions, it did do much to support the use of simulations for training purposes. Besides flight simulation, which still plays a major role in the training of Army aviators, the Army has created a series of varied simulations. Over the past 15 years, for example, the Combined Arms Training and Development Agency (CATRADA) at Fort Leavenworth, Kansas, developed an entire family of war games. These war games, referred to as battle simulations, run the gamut from squad to brigade level.

Although much of the research done with battle simulations has focused on decision-making for leaders and on inter-staff communication, these simulations also offer a fertile ground for evaluating the effect of various stresses on battalion and brigade commanders and staff officers. The behavior of the participants in such simulations, in fact, mirrors quite well what they would be doing in actual field tactical operations centers.

## ENGAGEMENT SIMULATIONS

When it comes to field training itself, historically it has been conducted much like the childhood game of Cops





Soldiers from the 1st Battalion, 28th Infantry, prepare for MILES training in the field.

and Robbers — “Bang-bang, you’re dead.” In the 1970s, however, the Army began to change its field training programs to include the use of a simulation system that was based more on casualty assessment. This system was designed to teach small units to perform combat operations in a relatively realistic environment without the obvious hazards of actual warfare. A group of these simulations became known by the generic term *engagement simulation* (ES). The first ES, called SCOPES — Squad Combat Operations Exercise (Simulated) — was developed by a joint working group that included combat veterans as well as psychologists.

Such engagement simulation exercises differed from field training exercises (FTXs) in the way casualties were assessed and in the way this assessment influenced troop motivation. Instead of using umpires who made arbitrary judgments concerning simulated life and death conditions, ES employed a complex system of controllers, radio communications, telescopic sights, and identification numbers for the personnel involved in the exercise. The basic concept underlying this low-technology simulation was that if an infantryman could be seen, he could be killed. Thus, every soldier wore an identification number derived from a set of key numbers assigned randomly to the opposing forces. If an enemy soldier could read an identification number through a low-power telescopic sight and then fire his weapon, the soldier wearing that number was considered killed in action. (The controller with the soldier’s unit received the message by radio from his counterpart on the opposing force and informed the soldier of his demise.)

Exercises such as these were quite popular with the soldiers; the commanders of units involved in the development of ES reported that during the exercises both disciplinary problems and AWOL rates declined. This may have been because of increased motivation or identification and involvement with the exercise, or it may have been because of the sheer novelty of the ES program.

In either case, ES was destined to grow in use and application until it expanded beyond infantry units to include armor units and combined arms teams. SCOPES eventually was retitled “Realtrain,” and artillery and air defense models were also created and tested. In the course of these developments, it became clear that the largest unit a manual control system could handle was a company or a company team and that even this was barely achievable.

## LASERS

Technology caught up with ES in the mid-to-late 1970s when the Combat Developments Experimentation Command (CDEC) developed an instrumented range at Fort Hunter Liggett, California. In this system, casualty assessment was based on the use of lasers instead of bullets. All the soldiers and the weapon platforms (tanks, APCs) were equipped with “eye-safe” lasers and associated detectors. If any detector was struck by a laser from the opposing force, a computer determined whether the contact was to be considered a destruction, a hit with disability, or a near miss. This instrumented range kept track of the location of every major weapon system and vehicle that was taking part in the exercise and made it possible to conduct detailed after-action reviews. This system, therefore, had considerable research potential. Position location, or “ground truth” information, could be stored in the computer; in addition, every engagement could be recorded and stored on a time-based storage medium. (CDEC has used this range extensively since that time and still employs it for systems and concept research.)

Laser technology also made it possible to use ES to support exercises for units larger than a company or a company team. TRADOC began the development of laser applications to training systems in the 1970s and ex-

panded the technology to include portable laser training systems for use at home stations. Collectively, these became known as the Multiple Integrated Laser Engagement System (MILES).

The National Training Center (NTC) at Fort Irwin, California, now makes the most sophisticated use of combat simulations in the Army, including MILES. The Center not only uses the latest ES technology, it also features a permanent opposing force that performs military operations based on Warsaw Pact tactics. Each combat battalion in the U.S. Army is sent to the NTC periodically so that its soldiers can experience the reality of desert combat without also experiencing its hazards. The level of realism and stress at the NTC is considerably higher than that of anything else units are ever exposed to, short of actual combat.

The potential uses of simulation in training and research are many and diverse. The main advantage of using simulation techniques are lower costs, greater control, and safer conditions. Cost is a particularly relevant factor, as is the wear and tear on operational systems.

At the same time, safety is an ethical consideration as well as a practical one. Simulation provides an opportunity for creating situations that are critical to training but that contain no actual hazard. ES can create, for example, the sights, sounds and, some have claimed, even the feel of battle without the dangers of real combat.

As for research, simulation can offer the researcher a wide variety of techniques and can give him greater control of the experiment. The level of control the experimenter maintains over the test conditions in simulation gives him many opportunities to measure behavior that he would not otherwise have. Computer simulations also make automated data collection possible.

But all of this raises the issue of simulation fidelity. It is an oversimplification to say that *fidelity* is synonymous with *realism*. Ideally, a high fidelity simulation should give the participants the sense of "being there" to the extent that they feel they are a part of the system being simulated. This is not to say that to be useful every simu-

lation must have perfect fidelity. The level of fidelity in simulation is always a trade-off between cost and expediency; with enough money and time, just about any system known to man can probably be simulated.

Accordingly, the importance of simulation as a research tool must be kept in perspective. It is, after all, only a means to an end, not an end in itself. An effective simulation must place human participants in a realistic situation or an operational environment in which they can perform their actual duties. Their actions in that environment will be a function both of what they bring with them (skill, knowledge, ability, motivation) and of the contingencies the situation itself establishes. But by balancing the fidelity required to get the job done with the operating cost of achieving that fidelity, researchers and trainers can create settings in which participants are motivated and allowed to perform their tasks much as they would in the real world. The relevance and applicability of the results to Army operations will continue to speak for themselves.



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John L. Kobrick is a research psychologist assigned to the U.S. Army Research Institute of Environmental Medicine. He previously served with the Army Quartermaster Corps Climatic Research Laboratory and the U.S. Army Natick Research and Development Command. In all, he has completed 31 years of research on soldier performance for the Army. He holds a PhD degree from Pennsylvania State University.





# TRAINING NOTES



## The Weaponeer and Marksmanship

JOEL D. SCHENDEL

The Weaponeer, a training device that simulates the live-fire conditions of the M16A1 rifle, can be a valuable resource, or it can be a detriment to effective marksmanship training. It all depends on how the device is used. And there are some problems with the way it is now being used.

The Fort Benning Field Unit of the Army Research Institute (ARI) has been doing research on marksmanship for several years. A major product of this research is the current basic rifle marksmanship (BRM) program of instruction. BRM training now includes more feedback, better instructor training, and better supporting materials. This research has also led to the development of an advanced rifle marksmanship program as well as to guidelines for conducting unit marksmanship training. (Articles summarizing major portions of this research appeared in the July-August and September-October 1981 issues of *INFANTRY*.)

Although the original Weaponeer, rather than the current one, was used in this research, I believe my observations here are still valid and that my recommendations will help trainers make the most of the time their soldiers spend on the device. (The views expressed are my own.)

The Weaponeer is a stand-alone rifle marksmanship simulator that uses a non-restorable M16A1 rifle. The rifle's recoil is simulated by the operation of a recoil rod that attaches to the barrel of the rifle, and the sound of the rifle is transmitted through earphones.

Contrary to appearances, the Weaponeer does not use a laser to register hits or misses. It uses infrared light from a light-emitting diode on the target to activate a sensor that is mounted on the rifle barrel. When the rifle is aimed and fired, this sensing system provides precise information about target acquisition and shot location. (This information is then processed by a computer in the console.) The Weaponeer has a memory for recording up to 32 accurately simulated shot impacts and a printer for providing a printout of all shots on the selected targets.

A video display shows the shooter's aiming point, which appears as a dot or ball of light. The screen also displays the selected target and the location of hits and misses. Two unique features of the video display are the "replay" and the "each shot" controls. When activated, the "replay" feature shows the movement of the rifle during the three seconds before

firing, while the "each shot" feature displays not only the location of each shot but also the order in which the shots were fired. The video display also includes such information as the number of hits on the target, the number of misses, the late shots (fired after the target has dropped), and the total number of shots fired.

The Weaponeer contains four targets: a scaled, 25-meter zeroing target; a scaled, 100-meter E-silhouette target (kneeling man target); and two scaled, 250-meter E-silhouette targets. The scaled, 25-meter zeroing target shows a scaled, 250-meter E-silhouette target with superimposed grid lines, like those on the Army's current 25-meter live-fire zeroing target.

The targets are presented one at a time, but they can be activated singly or in automated sequence by buttons on the Weaponeer's control panel or remote control box. The silhouette targets can be programmed to fall when hit by means of the "kill" button. Exposure time can be varied from 1 to 30 seconds for the scaled, 100-meter target and from 2 to 30 seconds for the scaled, 250-meter targets. The targets can also be set for continuous presentation. Firing pads used with the Weaponeer enable the firer to shoot from any position.

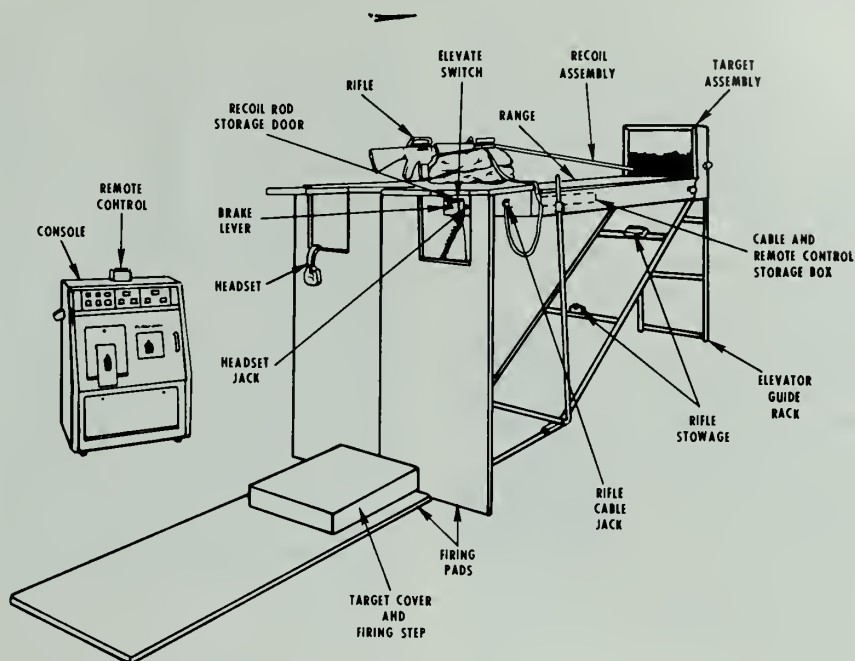
The first problem in the use of the Weaponeer is that there is a limited supply of the devices and a high demand for them. The Army now has about 45 Weaponeers distributed among 21 installations throughout the world. At Fort Benning, for example, during BRM training alone, the demand for the Weaponeer is so great that only the worst shooters can be allowed to use it. Even then, these shooters are rarely permitted to spend more than a few minutes on it.

Although the Army plans to buy a total of 220 Weaponeers (including those already in the system and some designated for use by its Reserve Components), these additional devices probably will not alleviate the supply problem. In fact, as more soldiers are exposed to the Weaponeer, the demand is likely to increase accordingly. Thus, the only way to alleviate the problem — apart from continuing to buy more and more Weaponeers — is to develop more efficient approaches to using the ones that are available.

One of the reasons for the excessive demand on the device is that trainers and commanders alike have greeted the Weaponeer with favorable attitudes and high expectations. Although these attitudes and expectations are welcome signs of the Weaponeer's acceptance, they have also contributed to a considerable amount of over-reliance on the device as a cure-all for shooting problems.

This over-reliance has had at least three negative side effects. First, it has led to the neglect of other, more traditional forms of marksmanship training that could be helpful to the problem shooter. Second, those who would otherwise be providing this training have begun to use the Weaponeer as a crutch — if a soldier cannot shoot, they send him to the Weaponeer. (Obviously, solving a soldier's shooting problems is not as simple as that.) Finally, over-reliance inflates the demand for the Weaponeer, and soldiers sometimes stand in line for long periods waiting to use it. This waiting time is usually unproductive.

The third problem with the Weaponeer is the lack of a standardized set



Weaponeer set up for use in foxhole supported position.

of procedures for its use. With no guidelines to follow, instructors are put in a learn-as-you-go situation. Most try to make the best of it, but with no tested and established guidelines for using the device and with a high rate of turnover among instructors, inefficient and counter-productive procedures are frequently used.

There are several ways of alleviating these problems:

**The Weaponeer should be used continuously.** The Weaponeer is a limited resource, and that limited resource is being wasted any time it is allowed to sit idle when troops are around.

**The Weaponeer should be used for diagnosis.** The task of diagnosis is to identify the sources of the various problems soldiers have with shooting. Diagnosis is therefore a necessary first step toward remedying these problems.

One of the reasons the Weaponeer is so valuable as a diagnostic device is that it eliminates most of the errors caused by the rifle, the ammunition, and the environmental conditions (wind, for example). This makes it easy to trace shooting problems back to the shooter himself. A second reason is that the features on the Weaponeer, most notably the replay

feature, can provide more information about a soldier's shooting problems than is now available through any other means. Through these features, most violations of the fundamentals of marksmanship can be detected.

While problems can be diagnosed quickly and effectively with the Weaponeer, ARI's research indicates that these problems cannot be remedied with it — at least not quickly and effectively enough to warrant using the device in this manner. In one experiment, for example, the live-fire performance (rounds to zero) of initial entry soldiers who had received various types and amounts of instruction on the Weaponeer was compared with the performance of a group of initial entry soldiers who had received no instruction on the device. Overall, each soldier in the former groups received an average of about seven minutes of individual instruction and fired an average of about nine shots on the device. The results showed that these soldiers performed no better than those who did not receive the instruction.

Even if it were possible to solve a soldier's shooting problems in, say, 30 to 60 minutes, it probably would not make sense — in most cases, at least —



to use the device as a remedial trainer. If each soldier were given only 10 minutes on the device, it would take 5 Weaponeers and 8 hours to "remediate" a company of 240 soldiers. Even with 10 Weaponeers, each soldier's remedial training time would be only 20 minutes.

Given the limited supply of Weaponeers, this same point could be made in regard to the use of the device as a substitute for live-fire training. One soldier's training will almost always come at the expense of another's. Then, too, the Weaponeer was not designed to serve as a substitute for live fire. Anyone who has fired the Weaponeer knows it does not produce the same sensations as live fire does. In short, the Weaponeer is an excellent supplement to live fire but can never totally replace it.

Instead, after their problems have been diagnosed, soldiers should be assigned to dry fire remedial training exercises that are designed to correct their individual shooting problems. Dry fire can be quite effective when it is done with the help of a good instructor, and it is cost effective. This way, resources are not wasted in efforts to conduct training on the Weaponeer that can and should be conducted elsewhere. In addition, instructors can concentrate their efforts in the areas where soldiers need help the most.

**The Weaponeer should be used early in BRM training.** If the Weaponeer is used in the early stages of BRM training, shooting problems can be detected and eliminated before they develop into bad habits, which are not easy to change. Shooting problems can be corrected quickly at that time because the soldiers have repeated opportunities for practice and feedback. If these problems are identified later in BRM training, the soldiers may not be able to correct them before they attempt to qualify.

As an illustration, ARI recently examined the effect of varying amounts and types of Weaponeer training on the record fire performance of permanent party soldiers. These soldiers fired up to 128 rounds on the Weaponeer,

with feedback, 24 to 48 hours before firing record fire. While the Weaponeer training had a clearly beneficial effect on the soldiers' performance on the Weaponeer, it had no apparent effect on their performance at record fire. Given this result, it would seem far wiser to use the Weaponeer to diagnose the shooting problems of many soldiers early in their training than to attempt to upgrade the existing skills of only a few soldiers immediately before record fire.

**The Weaponeer should be used in the prone, unsupported position as well as in the foxhole supported position.** BRM training emphasizes both firing positions, but virtually all diagnosis with the Weaponeer is now being conducted in the foxhole supported position. (This position is seen as having first priority because it is easier to learn and is the position from which soldiers zero their rifles.) Data from two separate experiments, however, strongly suggest that firing from the prone position involves skills only weakly related to those involved in firing from the foxhole. In other words, a soldier who shoots well from the foxhole supported position may or may not shoot well from the prone unsupported position and vice versa. Since half the rounds in record fire are fired from the prone unsupported position, it would be beneficial to use the Weaponeer to diagnose firers in that position, too, preferably after they begin showing signs of mastering the foxhole supported position.

**Trainers should keep track of soldiers who have shooting problems.** Once a soldier has been diagnosed as having shooting problems, an effort should be made to keep track of his progress from one period to the next. Some feel that when the poor BRM performer eventually zeros, his shooting problems are solved. But they are mistaken. Unless weak shooters are identified early and helped throughout the program, chances are they will still have problems when they attempt to qualify.

The Weaponeer also may provide needed support to unit marksmanship training, particularly since live fire

ranges are often either inadequate or unavailable. This is especially true in Europe where there is a scarcity of certified outdoor range facilities that can be used to satisfy both marksmanship training and record fire requirements. Typically, Army Reserve and Army National Guard units also must bear time and cost burdens because of the need to transport troops to remote training locations and billet them there.

One potential use of the Weaponeer at the unit level is for sustainment training. The problem is that there is no compelling evidence to support the Weaponeer's training value for sustainment. Again, our research indicates that training on the Weaponeer improves performance on the device itself but not on the live fire range. Other research in which individual soldiers improved after receiving Weaponeer training leaves it unclear whether these gains resulted from the training itself or from other factors, such as more or better individualized instruction.

Most feel that the device does have training value, but our data suggest that if the Weaponeer is going to have an appreciable effect on unit marksmanship performance, the amount of training must be quite extensive. Since most installations do not have enough Weaponeers to provide this extensive training to every soldier who needs it, we recommend that when a device becomes available for use in unit training it should be used for diagnosis. Once a soldier's shooting problems have been diagnosed, he can then be given remedial training exercises *off* the Weaponeer that are tailored to his specific needs. (If time allows, the Weaponeer can also be used following dry fire to help determine whether a soldier's shooting problems have, in fact, have been solved.)

Another way the Weaponeer can be used in units is to help commanders predict which of their soldiers will qualify and which will fail when they go for record fire. In one experiment, for example, soldiers fired a "surrogate" record fire scenario on the Weaponeer (not the Weaponeer's pre-

programmed "random raise scenario") 24 to 48 hours before their actual record fire. Of the 48 soldiers tested, 73 percent passed it when it was predicted they would pass or failed when it was predicted they would fail. Nineteen percent passed when it was predicted they would fail, and, most significantly, only 8 percent failed when it was predicted they would pass. The use of the device for prediction is not foolproof, of course, and it may be difficult for unit commanders to schedule the use of the device over extended periods for testing purposes. But it is an option for the commander who may feel he has no options.

Used in this way, the Weaponeer

may at least be able to identify weak shooters before they go to record fire so that they can be given remedial training. As an alternative, their performance on the Weaponeer might be used as a substitute for some record fire, which should result in significant savings in time and money. (ARI is now in the process of preparing a report that will provide specific information on how to conduct "surrogate" record fire testing on the Weaponeer. And a more complete discussion on the use of Weaponeer is presented in ARI Research Product 82-08, *Guidelines for Use of Weaponeer During Basic Rifle Marksmanship Training*, by J.D. Schendel and G.P.

Williams.)

Thus, research indicates that if the Weaponeer is used as suggested here, and not misused, it can be a valuable resource both during BRM training and later in unit marksmanship training programs.



Joel D. Schendel has been a research psychologist with the U.S. Army Research Institute for the Behavioral and Social Sciences since 1977 and is now assigned to the Institute's Fort Benning Field Unit. He holds a PhD from the University of Illinois.

# The Light Leaders Course

**CAPTAIN WILLIAM D. PHILLIPS**

The Light Leaders Course now being conducted at Fort Benning was developed in conjunction with the conversion last year of the 7th Infantry Division to the new light division organization. Once that division's training has been completed, the other divisions that are being activated or converted to that organization will also be trained.

The course was designed as a way to increase the infantry skills of company leaders in the areas of leadership, training instruction, and tactical battle drill. In addition, it emphasizes the development of unit cohesiveness, teamwork, and professionalism. The "spirit of light infantry," which flavors the course, helps produce a tough, aggressive, and smart infantry leader — one who has confidence in his abilities, his training, and his men, as well as in the ability of light infantry units to fight and win on the battlefield.

The course is 28 days long and includes an average of 16 hours of train-

ing per day. Although the course is taught by members of the York Branch, Benning Ranger Division of the U.S. Army Ranger Department, it is not a Ranger school — it is a leadership course, and one that is unique in the Army's formal education system.

Each class is made up of the company chain of command, from commander through team leader, of three rifle companies from one battalion. (Under its TOE, each light infantry battalion has three rifle companies and a headquarters company.) The three company cadres are formed into student platoons for training, with the leadership positions rotated daily. (The students wear their regular insignia of rank, however, and the formal chain of command of each company is still responsible for all non-training administration and control for that company.)

During the course, the three company commanders work as part of the course staff to plan and present instruction and training. And because

the Light Leaders Course uses a train-the-trainer approach, more than half of the formal instruction and training is prepared and presented by members of the class. All members of the student company, in fact, participate in the training and are evaluated by Ranger instructors on their leadership, motivation, supervision, and communication, as well as on their tactical application of the subject matter.

The subject matter is divided into three groups: core subjects, METT-T training, and tactical battle drills (which culminate in a situational training exercise). The core subjects are the individual soldier skills and leadership skills soldiers must have to perform squad collective tasks and battle drills — marksmanship, physical training, hand-to-hand combat, and troop-leading procedures, for example.

The METT-T training includes tasks that each leader must overcome his fears to perform — such as small-



boat operations, helicopter rappelling, and helocasting. (These are things people in TOE units seldom do.)

But the true meat of the course is the tactical battle drill portion, which is taught in two phases — the drills themselves and the students' presentation of them to their fellow students.

A tactical battle drill is that portion of a collective task that can be learned by rote, a standard technique or procedure that, after repetitive training, becomes spontaneous and instinctive. Such a drill also relates to the direct employment of weapons by more than one person for the destruction of enemy personnel and equipment.

The collective tasks in tactical battle drills are more elaborate than the individual tasks but less so than an ARTEP mission or task. A squad performing an area reconnaissance, for example, must also be able to perform

a passage and re-entry of lines, fast movement, crossing of danger areas, and actions at the objective. These subcollective tasks are taught as tactical battle drills.

As an example, the tactical battle drills involved in the ARTEP mission of conducting a raid are the tasks of breaching wire obstacles, clearing a trenchline, and knocking out a bunker. The individual skills needed to conduct these drills are rifle marksmanship, movement techniques, personnel camouflage, and securing and searching prisoners.

During the first phase of tactical battle drill training (Days 13-15), the students are taught 24 battle drills along with the necessary preparations for teaching them to others, including training aids and aggressors.

The class is divided into four groups, each containing several students from each company. Each group receives instruction on 6 of the 24 battle drills. The students are trained on the actions of each squad position in each drill, from squad leader through assault or security team to machinegunner. Then all the members of the composite squad for each drill practice it until they fully understand how each step of the drill is conducted and why. (There is no set time limit for a drill — it continues until the squad meets a set standard.)

There are four days between the two phases. During these four days, each student prepares to present to his regular squad two of the six drills he has learned.

The second phase begins on Day 18 and lasts for seven days. Each day, three battle drills are taught by the students to their squads, and at night patrol-base operations are conducted by other students. The students are evaluated by York Team instructors on how well they take charge of the unit; the motivation of the squad members to conduct the training; their supervision and on-the-spot corrections; their communication of instructions and concepts to the unit; and the conduct of the techniques of each tactical battle drill. Each evening, the next day's student instructors must re-

view their subjects and practice their presentations.

The tactical battle drills fall into three categories: offensive, control, and defensive, as shown on the accompanying chart. The fact that most of these drills are offensive ones reflects the offensive spirit of the light infantry, whose leaders must be prepared to take the initiative and perform boldly and aggressively.

The control drills are those that a unit must be able to do if it is to survive and sustain itself in combat — fieldcraft and common sense knowledge of dismounted patrolling. (More defensive drills may be added in the future.)

Within several of the drills, groupings of similar drills — called drill sets — are taught. Because they have a similar effect on the student squad and require the same aggressor and terrain support, these drill sets complement the overall concept of smart, economical training.

Although several of the tactical battle drills listed on the chart are ARTEP missions, the tasks that squads or teams conduct are pure battle drills. A platoon raid, for example, is an ARTEP mission, but the missions of the three squads in the course are to perform the three distinctive subcollective tasks of a security team, a support team, and an assault team. Each of the squads is instructed as a unit on each of the three tasks and on the responsibilities of each special team and each individual soldier before they rotate to one of the other tasks. In this way the ARTEP missions to conduct a raid, a reconnaissance, and an ambush (among others) are taught as tactical battle drills.

On Day 24, the students are taught how to rig the A21 containers that will be used to deliver their resupply of rations, water, and ammunition the next day. The students also enter a concentrated planning phase for the follow-on situational training exercise (STX), which begins with a tactical helicopter movement at dawn, followed by an air resupply and a force augmentation by Air Force C130 aircraft.

During the remaining two and a half

## TACTICAL BATTLE DRILLS

### Offensive

- Breach wire obstacles
- Breach a minefield
- Knock out bunkers
- Clear a trenchline
- Conduct a raid
- Movement techniques/danger areas
- Zone reconnaissance
- Area reconnaissance
- Conduct antiarmor ambush
- Conduct hasty ambush
- Enter and clear buildings (MOUT)
- Fire and movement
- Tactical air movement by helicopter
- Conduct vehicle movement

### Control

- Establish patrol base/hide position
- Passage and re-entry of friendly lines
- Conduct aerial resupply
- Conduct a linkup
- Actions at rally points

### Defensive

- Squad fire control (live fire)
- Target acquisition
- Establish hasty defense
- Establish/remove hasty minefield
- React to enemy contact/ambush/break contact

days of the course, the students conduct all of the 24 battle drills as portions of ARTEP missions. Working from fire team through company level, the students conduct reconnaissance, ambush, and raid missions as well as exfiltrations, linkups, and reentries of friendly forward lines. The student patrols are evaluated throughout the exercise to the same standards (and on the same evaluation forms) the patrolling teams of the Ranger Department use for Ranger students.

The Light Leaders Course has had a significant effect on the 7th Infantry

Division's preparations for conducting the Light Fighters Course at Fort Ord. The two courses have parallel objectives and a parallel construction. The Light Leaders Course is the foundation for training the trainers and for instilling the tactics and the abilities soldiers need to become skilled, tough, aggressive, and smart light infantrymen. The Light Fighters Course is the medium through which this knowledge and spirit is transmitted to the soldiers. The spirit of the light infantry is thus spread from the Rangers through the division's leaders and on to its soldiers. The divisions

that follow the 7th in this training process should find it equally beneficial when they convert to the light infantry organization.



Captain William D. Phillips, a 1975 ROTC graduate of the University of Tennessee, is chief of the York Branch of the Ranger Department. He formerly served as an infantry platoon leader and a heavy mortar platoon leader in Germany and as a rifle company commander in the 101st Airborne Division (Air Assault).

# Training May Not Be the Answer

CAPTAIN JACK H. CAGE

If you have ever used a training program to solve a performance problem, you may have wasted your time. Training is not always the answer. A short story will illustrate:

A young lieutenant reporting to a battalion in Germany naturally wanted to command a platoon but a command position was not available. His battalion commander assigned him instead as battalion safety officer, but made a deal with him: "Lieutenant, I have a terrible problem with accidents in the battalion. I fired the last safety officer because he couldn't reduce the accident rate. If you *can*, you'll get your platoon." The lieutenant agreed and charged out on his crusade.

During the next few days, he asked several soldiers about the previous safety officer's approach. The reports were consistent: Day after day, the officer had held classes on vehicle opera-

tion, weapon safety, and so on. In essence, the relieved officer had seen the problem as one he could solve with training; he had tried to *train* the battalion to be safe. He had given so many classes, in fact, that they had become the number one gripe in the unit. Besides that, he had deluged the battalion with posters, handouts, and wallet-sized cards with safety mottoes on them. He had even moved demolished automobiles into the area to emphasize the results of careless driving. Unfortunately, the battalion's safety record plummeted, as did the officer's standing in the battalion.

What did the new lieutenant do? After determining that the unit's soldiers *knew how* to prevent accidents, he assembled the battalion and said: "By now you've probably heard that the accident rate in our battalion is way too high. And you already know

how to prevent accidents, so I won't stand up here and tell you about that. But if the accident rate decreases, I won't hold any more safety classes, and we'll hold a battalion cook-out every month the rate decreases." Interestingly enough, from then on the battalion had the lowest accident record in the division. And the lieutenant got his platoon.

This tale highlights three important aspects of human performance:

- Training is an appropriate solution to a performance problem *only* when the soldiers need more information or new skills. It is a waste of time and effort when they already have the required knowledge.

- You can use pointed questions, as this lieutenant did, to identify the extent of a performance problem and to determine whether training is needed.

- Linking incentives to soldiers'



performance can effectively modify or maintain the performance you want from them.

Perhaps we need to go back at this point and define exactly what a performance problem is. The term refers to any situation in which an individual's or a group's actual and desired performances don't match. Unfortunately, we see examples all the time. In the story about the safety officer, the desired performance of the soldiers in the battalion was much different from their actual performance, and the lieutenant's mission was to reduce that difference. There are many other examples: A commander sets a standard of 250 points on the Army Physical Readiness Test, but 30 percent of the company fail to reach it; a staff officer is assigned the mission of completing a report, but he submits the report two days late.

How do you know when you have a performance problem in your unit? First, listen to the people around you. If you hear people saying that your soldiers just aren't doing what they should be doing; that they have a lousy attitude; that the unit has too many AWOLs; or that a training program is needed to teach a specific task, these are tip-offs that something is wrong. If you follow them up, you'll probably find a performance problem lurking in the shadows.

The following questions can help you focus your analysis of the situation:

- What exactly do I want, and what am I getting now?
- Where is the discrepancy?
- When does the discrepancy show up?
- To what extent does the problem exist?
- What are the sources of my information? Are they reliable? Is the information valid?
- What's the worst thing that can happen if I do nothing? Can I live with it? (Obviously, if it isn't broken, don't fix it!)

Once you have thoroughly and accurately answered these questions, you should have a precise description of your problem. The next step is to

remove that discrepancy between what is and what should be. But how do you do this?

First, people perform for a combination of two reasons. They perform because they have certain skills that enable them to do so. A soldier can prevent an accident, for example, by following a set of procedures he learned in school. But people also perform because of the incentives or rewards associated with their performance. Soldiers may have the necessary skills to prevent an accident but do not use those skills for various reasons — perhaps because they think their buddies will harass them if they follow the prescribed procedures or because they want to get back at their squad leader somehow.

## CENTRAL QUESTION

The central question to ask, then, is whether they know *how* (have the skills) to perform to standard. That is, *could* they perform if their lives depended on the result? If your answer is a strong "No," then training is a necessary step toward solving your problem. If the answer is "Yes," however (they could perform if it really mattered to them), then training won't fix the problem, because something is apparently lacking in the environment in which the soldiers work. Their performance, therefore, must be tied to some incentives before it will change.

The basic idea here is rather simple — human behavior is controlled by its consequences. One type of consequence is often called a reinforcer. A reinforcer is anything that causes an increase in the behavior that preceded it. And, as most of us know, reinforcers can be either positive or negative. A positive reinforcer can be a letter of commendation, a medal, or merely an "atta boy," and each can bring about an increased frequency of a desired action.

The new safety officer of the battalion in Germany, for example, made battalion cook-outs contingent on lowering the accident rate. In this case, the prospect of attending a cook-

out was rewarding or reinforcing to the soldiers. Furthermore, the lieutenant used the reward to maintain the safe performance.

A negative reinforcer, on the other hand, also increases the frequency of an action because people try to escape from it or avoid it. Our young lieutenant used this, too. He tied safety classes to safe performance — his promise to remove something painful, more safety briefings — caused the soldiers to increase their safe behavior.

Punishment can also decrease undesirable behavior. Punishment can consist of anything soldiers do not like, of course. A soldier might be punished with additional duty for driving too fast, for example; the punishment, hopefully, will cause him to stop the undesirable behavior — speeding.

The lieutenant realized that training has its limitations and that it is sometimes inappropriate. He also understood that people perform not only because they have certain skills but because their performance is linked to certain incentives. His first question was "Could they perform if their lives depended upon it?" Since in this case the answer was "Yes," all the training in the world would not have improved the safety rate. It was the change in the incentives associated with operating safely that made the soldiers' behavior matter to them. The result was a lower accident rate, and a happier lieutenant.

So, if your soldiers are not performing well in certain tasks, look before you leap on the training bandwagon. There may be other, more appropriate ways to nip your performance problems in the bud.



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# MILES Game Equals Training

LIEUTENANT COLONEL JOHN M. LeMOYNE

CAPTAIN MARK VAN DRIE

SERGEANT FIRST CLASS LARRY M. SLUDER, JR.

Imagine being able to conduct training that is challenging, fun, inexpensive, and easily implemented —and training that does all of the following:

- Exercises basic infantry skills.
- Develops small-unit leadership.
- Improves squad cohesion and teamwork.
- Builds physical fitness.

And imagine that this training takes only ten minutes!

Soldiers in the 3d (Marne) Infantry Division don't have to imagine such training; their units are accomplishing all of this and more.

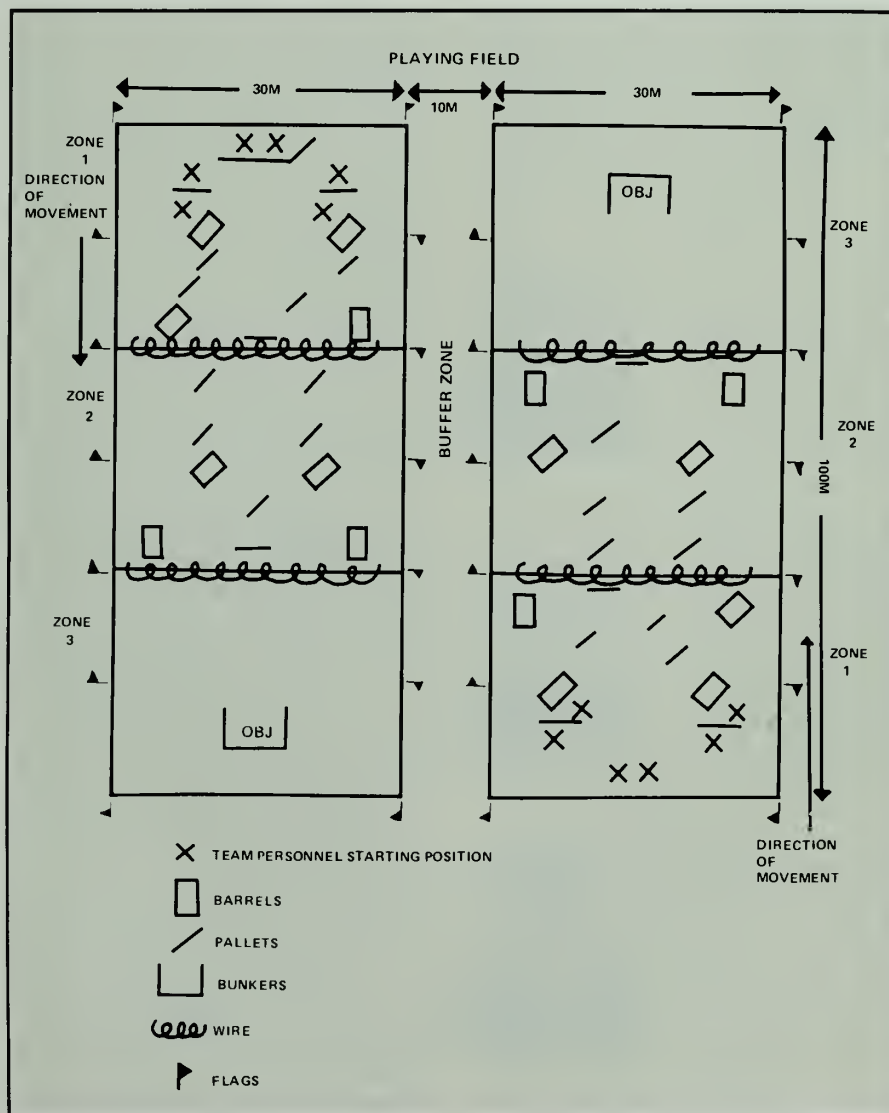
The Commanding General of the 3d Division, Major General Howard G. Crowell, Jr., challenged the division's units to develop a small-unit competition that incorporated the use of the Multiple Integrated Laser Engagement System (MILES) and one that could easily be implemented throughout the division. The implied task was to pack as much training value as possible into the competition. The soldiers of the 2d Battalion, 30th Infantry, responded to the challenge and created what is now called the "MILES Game."

The MILES Games is a squad-against-squad competition that combines the tried and true fire and movement tactics of the infantry with the training value of MILES. It was specifically designed to train soldiers in the use of individual movement techniques to improve their chances of surviving on the battlefield. But, as it turned out, the game does more than that —all of those things listed above, in fact.

The game can be conducted in any

open area with dimensions of approximately 100 meters by 70 meters. The playing field, as laid out by the 3d Division, consists of two lanes, each 30 meters wide and 100 meters long, with a 10-meter buffer zone between them (see sketch).

Each lane has an enemy bunker, two wire obstacles, and a series of identical emplacements, which are designed to provide cover and concealment for the competing squads. The obstacles and emplacements can be created from such easy-to-find items







Obstacles and emplacements provide cover and impede or facilitate movement.

as 55-gallon drums, concertina wire, sandbags, pallets, railroad ties, and logs. (The placement of obstacles and cover can be left to the discretion of the controllers, so long as it is the same for both lanes.) The bunkers are five sandbags wide, four deep, and five high. Markings, obstacles, and bunkers are emplaced as shown in the flag sets is the easiest way to mark the field boundaries and the buffer zone, but engineer tape, rope, lime, or other materials can also be used.) The lack of cover in Zone 3 requires the intelligent use of smoke and covering fire.

In the interest of teamwork and cohesion, the game was designed for two teams, each consisting of members of the same squad. The actual team size in the 3d Division is six soldiers — the number in a Bradley's dismount element. The other squad members observe from the sidelines; their "during-action reviews" add peer pressure to the game, and at the same time these members gain from the experience of watching the action.

The soldiers carry standard infantry equipment for realism — including load-bearing equipment, protective masks, and body armor — and wear MILES laser detector suspenders and helmet bands. Each team carries five practice hand grenades, one M60 machinegun, and five M16A1 rifles. All the weapons are equipped with

blank adapters and MILES transmitters, which *have been boresighted*. (Extra MILES equipment is kept available to replace unserviceable items.) Binoculars, squad radios, rifle bipods, and M60 accessories can also be used at a squad leader's discretion. Four hundred rounds of blank machinegun ammunition, 200 rounds of blank rifle ammunition, and one smoke grenade are issued to each squad.

The teams begin the game with their soldiers in the prone position behind obstacles at opposite ends of the field. (Or they can start from inside BFVs or APCs at each end of the field.) A blast from an artillery simulator signals the start of the game, and the soldiers may immediately begin moving and firing, shooting at the "enemy" along the way. The object is for them to move down their team's half of the field and throw or roll as many of their grenades as they can into the bunker at the far end while sustaining as few casualties as possible. (They can use smoke to conceal their advance.) At the same time, they must try to prevent the other team from accomplishing the same mission. After ten minutes, the end of the game is signalled by a blast from another artillery simulator. (A detailed list of rules is shown in the accompanying chart.)

Three soldiers are delegated to serve

as umpires, although it is possible to conduct the game with two. (Platoon leaders and platoon sergeants are best suited for this duty, because they are, after all, the teachers and trainers of the squads.) The duties of the umpires are to start and stop the competition; to see that the rules are adhered to; to test the MILES equipment; to determine the winner; and to conduct after-action reviews. The umpires must have MILES controller guns.

The game is scored as follows:

- One point for each soldier who remains "alive" on the friendly side of the first wire obstacle.
- Two points for each "live" soldier who has crossed the first wire obstacle.
- Three points for each "live" soldier who has crossed the second wire obstacle.
- Five points for each grenade that is exploded *in* the enemy bunker.

Note that a team earns more points for getting a grenade inside the opposing force bunker than for keeping one of its soldiers alive. This represents the weight assigned to the accomplishment of the mission versus the preservation of the force. In combat, both are important, of course, but mission accomplishment is paramount. In the MILES Game itself, this disparity in point value is the motivating factor that pushes soldiers out from behind their cover toward the opposing bunker.

In addition to the points awarded, points are also taken away for certain violations of the rules. One penalty point is deducted for each of the following:

- Any activity by a "dead" soldier — talking, shooting, passing ammunition forward.
- Throwing a smoke grenade into enemy territory.
- Going outside the boundaries or into the buffer zone.
- Tampering with MILES equipment — removing batteries, for example. (The umpires must check the "live" soldiers before, during, and after the game with their controllers' guns to make sure the individual MILES equipment is operating the



## Rules for MILES Game

- Squad leaders may allocate ammunition and grenades in whatever way they deem necessary before the game starts.
- Soldiers may have magazines inserted and weapons loaded before the starting signal.
- Soldiers must remain on their half of the field of play at all times. (Soldiers who leave their half of the field of play, by moving either across the sidelines or the rear boundary of the end zone or into the huffer zone, will be "killed" by an umpire with his controller gun.)
- M16 MILES transmitters may be set on either semi-automatic or automatic, as a squad leader deems necessary.
- Ammunition and grenades may be reallocated within a team during the game. Ammunition and grenades may be taken from "killed" soldiers.
- If a machinegunner is "killed," any other soldier on the team may take his place and operate the weapon.
- When a soldier becomes a casualty, he must remove his helmet and remain in place. He may not communicate with his team through gestures or any other actions. If a soldier violates these instructions, an umpire will "kill" the nearest member of the soldier's team.
- "Killed" soldiers are allowed to observe the action.
- Casualties may not fire weapons or throw grenades, but grenades thrown by soldiers who become casualties in the act of throwing the grenades will count.
- A soldier may throw or roll the smoke grenade anywhere in his team's half of the field or in the buffer zone. A smoke grenade that is thrown or rolled across the buffer zone into the other team's half of the field will cause the thrower's team to lose one point.

way it should.)

In case of a tie score, the squad with the most ammunition on hand is declared the winner. When the game is over, an after-action review is conducted in the buffer zone.

(Experience has shown that it is best to run the exercise three times for each pair of squads—the best two out of three games yields a true winner, and this allows for such variations as wind direction, sunlight, and slope of field.)

What the MILES Game has done is to give the division a way to involve an entire unit in an inexpensive training exercise. In addition, with the use of the MILES equipment, the leaders and trainers are free to concentrate on their soldiers' combat skills rather than on such technicalities as determining casualties or assessing the effectiveness of fire and smoke. The soldiers who participate in the game obviously enjoy themselves and try hard to win; and this kind of challenge and competition is vital to any good training exercise.

The game is also physically demanding, for it helps develop the specific kind of physical fitness an infantryman needs most in combat—the ability to move short distances from position to position in a series of sprints, dives, rolls, and crawls.

Another advantage of the game is that it requires good marksmanship, just as combat does. To successfully engage fast-moving targets, fleetingly glimpsed while his head is down, a soldier must be able to hit what he is aiming at. Soldiers who place the selector switch on full automatic soon find themselves out of ammunition and with few "casualties" to show for it. (One platoon sergeant observing the game commented, "There's no way you can play 'John Wayne' with this system. Those who try the old Hollywood approach soon find they are no longer in the game.")

One thing that squad leaders have to learn in the game is how to communicate with and control the members of their team under fire. Observations of several squads competing in the game have shown that most squad leaders know how to organize their team to accomplish the mission and how to control their soldiers. The problem is that few of them can control their soldiers and stay "alive" at the same time. The leaders who continually dash back and forth and raise up to shoot are invariably among the early casualties.

One winning squad leader said that he positioned himself near the center front of his team because "it was more important that I be able to personally

see the enemy and be positioned where everyone in the team could see me than to be positioned where I could watch everyone in the team." An old lesson relearned! Squad leaders who position themselves to the rear of the team often have their soldiers "get away" from them—at least far enough away that they cannot hear their squad leader and he cannot use visual signals without exposing himself to enemy fire. So leading from the front is a key to success.

The MILES Game, as it was designed and is being conducted in the 3d Infantry Division, is laid out here in the hope that it will be just as valuable to other units. But this is only the basic approach. The terrain and the obstacles can be varied; other weapons and ammunition can be used; and the size of the teams can be changed. Or the game can be played at night, even in MOPP 4! The variations are almost endless. But however it is played, the MILES Game produces good training—and it doesn't require a lot of time or money.



**Lieutenant Colonel John M. LeMoynes** is commander of the 2d Battalion, 30th Infantry. He has served in numerous infantry assignments including the command of a rifle company in Vietnam and service with the 82d Airborne Division and the 2d Battalion, 75th Infantry (Ranger).



**Captain Mark Van Drie**, a 1977 graduate of the United States Military Academy, has served as rifle platoon leader, executive officer, scout platoon leader, company commander, and brigade and battalion staff officer. He has completed the Infantry Officer Advanced Course.



**Sergeant First Class Larry M. Sluder, Jr.**, is a rifle platoon sergeant in the 2d Battalion, 30th Infantry. He has served as an infantry team leader, squad leader, training NCO, and company supply sergeant. He has completed the Advanced Noncommissioned Officer Course.



# Protective Clothing Carrier

CAPTAIN LEE F. DUFFY

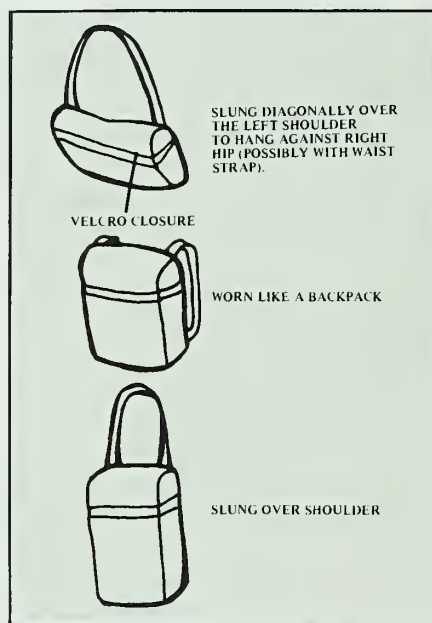
Chemical agents are the most psychologically devastating and physically horrible weapons known to mankind. Artillery-delivered chemical munitions can saturate a large area within seconds. To survive in a chemical environment, therefore, a soldier must have protection readily available. The required technology is on hand to provide this protection, and the equipment has been issued to units. Unfortunately, this equipment is often treated as just another item to be packed away in a rucksack and stashed back at the patrol base or stowed in a personnel carrier or truck until instructions are issued to increase MOPP (mission-oriented protective posture). If this attitude continues, we may find ourselves, as an army, caught with our "chemical" pants down in the opening battle of any future war.

All of us, as leaders, understand the need for chemical clothing, yet we allow our soldiers (and ourselves) to stand around or ride around on our simulated battlefields without protection from the very weapon the Soviet bloc nations diligently plan to employ.

When I was a mechanized infantry company commander, I felt at times that this was a deficiency in my unit's operational capability and survivability. On too many occasions, I saw the members of a squad, when ordered to suit up, dive to the bottom of a carrier to search for their rucksacks, and then to search again within the rucksack to find each of the required items of clothing. Valuable time was lost before they were able to don the protection they would need to stay alive and

continue the mission.

One might say that the carrier should be better organized. But this is not always possible, considering that ten men ride and operate in a vehicle that has an interior space equal to that of a Volkswagen van. In a space already full of ammunition and equipment, each man may not always know



where his own rucksack is in the pile.

The options currently available to a soldier are not totally satisfactory. Wearing the clothing all the time is, of course, not practical, especially during warm weather. Even when a new lightweight protective suit is fielded, constant wear would shorten its life significantly. And the rucksack, even the medium ALCE issued to most infantry units, is too bulky for a soldier to keep with him all the time. Besides,

items other than the chemical gear must also be put in the rucksack.

Another option is for a soldier to carry a separate waterproof bag or even a laundry bag with the chemical clothing in it, but such a bag has obvious drawbacks as well, such as being bulky and difficult to carry.

In addition, dismounted or light infantry operations create numerous situations in which an infantryman must travel light — reconnaissance patrols, observation posts, and anti-tank ambushes, for example.

What is needed, then, is a small carrying bag made of lightweight cloth and similar in design to an enlarged ammunition bandolier. Several possible designs are shown in the accompanying illustration.

The protective mask itself is a standard and integral part of the field uniform in the Army today, but this is only one component of a system. Carrying it without the rest of the protective clothing is analogous to carrying a handset without a radio.

Chemical protective clothing must become as much a part of the field uniform as the protective mask is now if the soldier is to have the protection his overgarment was designed to give him.



**Captain Lee F. Duffy** is now on ROTC duty at Princeton University. A 1974 ROTC graduate of Northeast Louisiana University, he holds a master's degree from the University of Southern California. He has served in Special Forces Europe and in the 24th Infantry Division.

# ENLISTED CAREER NOTES



## STABILIZATION

The term *stabilization* means, of course, that a soldier has assignment stability. But if the process of identifying and requesting the stabilization of a soldier is not done according to the proper procedures, it can cause confusion and frustration in the control and management system.

Let's take, just as an example, the duty position of first sergeant. A commander does not stabilize a soldier in that position just by putting him behind the first sergeant's desk.

AR 614-5, paragraph 2-11, Computing Stabilized Tours, states that "Stabilized tour lengths will be computed from the initial duty reporting date to the installation, or to the organization, *whichever comes first*." This means, obviously, that if a soldier has just been assigned to an installation and his first assigned duty position is as a first sergeant, then his MILPO updates the Enlisted Master File (EMF) by a SIDPERS input. This input will code the stabilization into effect. For soldiers assigned to CONUS, their DA Form 2A (Personnel Qualification Record) will show an AEA code of "V," followed by a year-month date reflecting the end of the stabilization.

Commanders and individual soldiers must be responsible for seeing that this important stabilization occurs. They can verify that it has been recorded on the EMF by ordering a copy of the soldier's DA Form 2A a couple of months after the stabilization is supposed to have been initiated. If it has not been recorded, then immediate corrective action can be taken.

But what about a soldier who has been on an installation for a while and who has served in one or more duty positions before being assigned as a

first sergeant?

AR 614-5, paragraph 2-11, continues: "Exceptions will be handled on a case-by-case basis. Requests for exception will be forwarded to the appropriate addresses in Appendix B." This simply means that if a soldier's first duty position at an installation was not as a first sergeant, then his command must *request* the stabilization from HQDA. The stabilization, if favorably considered, will then be authorized by DA. The initiation of a SIDPERS input alone will not accomplish the mission.

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## FIRST SERGEANT SQI

To award the first sergeant SQI (Skill Qualification Identifier), a commander must follow the procedures outlined in AR 614-200, paragraph 8-66 (c), Eligibility for award of first sergeant SQI. This paragraph states: "The commander awarding the SQI will send information to MILPERCEN for entry on the EMF (AR 640-2-1 and procedure 2-58, DA Pamphlet 600-8-2). Copies of orders awarding SQI 'M' and DA Forms 2A and 2-1 will be forwarded to HQDA (DAPC-EPK-1) for inclusion in the soldier's Career Management Individual File (CMIF). A copy of all correspondence will be retained in the soldier's MPRG."

(If practical, the outside of the envelope should be marked with the pay grade and MOS of the soldier involved. This speeds distribution to the team that will respond to the soldier's request.)

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## TOLL-FREE EPMD NUMBER

A new 24-hour commercial toll-free telephone number is now available for

enlisted soldiers to use in calling the Information and Assistance Office at the Enlisted Personnel Management Directorate at MILPERCEN.

Soldiers who need personnel assistance, such as contacting their assignment managers or other related matters, can now call 1-800-255-9411.

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## NEW PROMOTION POLICY

Since October 1984, unit commanders have new, simpler administrative procedures to follow when promoting their soldiers to CPL/SP4. The new policy in no way constitutes automatic advancement, however. Commanders must continue to make conscious decisions on which of their soldiers are fully qualified.

The new promotion authorization, developed to ease the workload on MILPOs and units, has the following key elements:

- All PFCs with three months in grade are eligible for advancement to CPL/SP4 at 24 months' time-in-service without any percentage restrictions (as it now stands). Soldiers must still be recommended by their commanders and must otherwise meet eligibility criteria.
- The Defense Department restriction that no more than 20 percent of the assigned CPLs/SP4s may have fewer than 24 months' time-in-service remains in effect.
- Promotion orders are not required for advancement. Instead, unit commanders will advance their soldiers to CPL/SP4 using a DA Form 4187 until an automated promotion instrument is fielded. The SIDPERS Enlisted Promotion Report can still be used to identify soldiers who are eligible for advancement.
- Early this year, MILPERCEN officials will field a modified version of



the SIDPERS report that will enable commanders to select soldiers for advancement at the 24-month point simply by checking a block "yes" or "no." For these advancements, neither orders nor a DA Form 4187 will be required.

Until instructions for preparing the DA Form 4187 are available, commanders have the authority to modify the PFC format outlined in Procedure No. 14-5 of DA Pamphlet 600-8-1.

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### **FREE OMPF COPY**

A soldier no longer has to visit the Army's Enlisted Records and Evaluation Center (EREC) at Fort Benjamin Harrison, Indiana, to find out what's in his Official Master Personnel File (OMPF). Since the Army converted the paper OMPF to microfiche, a soldier may obtain a free copy of his file for review at his home station.

All he has to do is write to Commander, USAEREC, ATTN: PCRE-RF-I, Fort Benjamin Harrison, IN 46249-5301. Each request should include the soldier's complete Social Security Number, name, return address, and signature. It takes about 20 days to process requests.

All soldiers are advised to request a free copy once a year to ensure that their files are accurate, and NCOs in zones of consideration for DA selection boards should ask for one at least four months before the board is scheduled to convene.

Soldiers can still visit EREC offices at Fort Benjamin Harrison, of course, to review their OMPFs, but they must make appointments by calling AUTOVON 699-3361 or commercial (317) 542-3361.

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### **ARMY NEEDS LINGUISTS**

The Army's language program offers soldiers a variety of jobs in different career fields and in many locations. To qualify, a soldier must meet the following requirements:

- Must have earned a high school diploma or its GED equivalent.

- Must have a standard score of 45 or higher on the High School Level GED Test 1 and 2 if he graduated from a non-English-speaking high school.

- Must earn a Defense Language Aptitude Battery (DLAB) score of 85 for Dutch, French, Italian, Norwegian, Portuguese, Spanish, and Swedish, and all dialects of these languages.

- Must have a DLAB score of 89 for languages other than those listed above.

- Must have an interim or final security clearance of Secret.

- Must have a physical profile serial of 1 in the "S" factor (psychiatric) and a minimum hearing acuity of 2 in each ear in the "H" factor.

- Must have a score of 95 or higher on the Skill Technical (ST) aptitude area of the ASVAB or AFCT, or on the GT aptitude area of the ACB if tested before May 1973.

- Must have completed Basic Combat Training and Advanced Individual Training before entering language training.

- Must be eligible for reenlistment according to the requirements listed in AR 601-280, Army Reenlistment Program.

- Must not be serving on an enlistment for which he has received an enlistment bonus or a selective reenlistment bonus.

A soldier who is selected for language training must also waive any unfulfilled enlistment or reenlistment commitments. (See AR 601-210, Regular Army and Army Reserve Enlistment Program, or AR 601-280 for details.) He will incur a service obligation as outlined in AR 614-200, Selection of Enlisted Soldiers for Training.

The current DA Circular in the 350 series (Language Training for Enlisted Personnel) contains schedules for this training including starting and ending dates, MOS, grade, and programmed unit of assignment. The circular is updated annually.

Soldiers who are interested in pursuing careers in foreign languages should visit their local MILPOs.

### **NEW EQUIPMENT TRAINING**

MILPERCEN has established procedures for reclassifying, reassigning, and stabilizing soldiers who undergo New Equipment Training (NET) and earn a new MOS or ASI.

To qualify for NET, a soldier must not have a separation action pending or an approved reenlistment option that will cause his reassignment to a location where he cannot use the training. He must meet reclassification criteria for the NET MOS as specified in AR 611-201 and must not have received assignment instructions to a non-NET unit.

The local MILPO will report the new MOS or ASI for which a soldier is undergoing NET through SIDPERS to MILPERCEN 60 days before the training begins. This will ensure that the soldier's newly acquired skill shows up in the automated personnel system. It will also ensure that the soldier is subsequently reassigned to units where his skill can be used.

Soldiers will be stabilized from 60 days before NET through 60 days after NET. The MILPO establishes the stabilization period by adjusting each soldier's AEA code or DEROS. (The stabilization policy applies only to soldiers who are actually undergoing NET; it does not apply to other support personnel in the unit.)

At the beginning of the NET stabilization period, the NET unit will compile a roster of the soldiers scheduled for training and send it through the MILPO to the appropriate MILPERCEN career branch. When the training is completed, the unit commander will certify the training roster and send a copy of it back to MILPERCEN through MILPO.

Soldiers who do not complete NET will revert to the MOS they held previously. The MILPO will then terminate the stabilization period and delete from their new assignments any soldiers who were on assignment instructions in a NET MOS or ASI.

More information is available from MILPERCEN, DAPC-EPZ-H, AUTOVON 221-8090 or 221-8091.

# OFFICERS CAREER NOTES



## CVI/VI PROCEDURES

More officers in the other-than-regular-Army (OTRA) category are now requesting Conditional Voluntary Indefinite (CVI) or Voluntary Indefinite (VI) status. A change to AR 135-215 (Officer Records of Service on Active Duty) will therefore be required so that the necessary strength limits can be maintained more easily.

The new system will require the establishment of a centralized board that is responsible for the qualitative management of the officer corps. The proposed process outlined here will use centralized screening to review the CVI/VI applications of all OTRA officers who ask for career status.

Applicants for both CVI and VI status will be evaluated by a single-panel board. The board will include an appropriate minority member, a woman, and a Reserve Component member, and the board president will be at least a colonel.

The board will select only those applicants who have the potential to serve 20 years of active Federal service and whose manner of performance is competitive with that of their contemporaries. An officer whose manner of performance represents a promotion risk will not be selected.

Before submitting a request for CVI status, OTRA officers must complete at least two years of active Federal service. They will be scheduled to attend an advanced course only after their CVI status has been determined.

Applications for CVI status will include recommendations from the officer's chain of command and will be forwarded so as to arrive at the officer's career management division not later than his 27th month of AFCS. Each officer must state on his application that he understands that he may

have to accept a branch transfer in exchange for continued active duty, and he will list three branch preferences in case a transfer becomes mandatory. If he wants to be voluntarily transferred to another branch, he must also state this on his application.

Because all CVI-approved officers will be identified automatically by computer, no formal application is required for VI. OTRA officers will be considered before they complete eight years of AFCS. The centralized board will vote on each officer's file for VI when he has had seven and one-half years of AFCS.

All officers who are approved for VI status will be allowed to remain in the Army until selected for promotion to major and integrated into the Regular Army, unless they are separated sooner under other appropriate regulations.

At the VI point, the Army hopes to have succeeded in balancing all branch strengths. If basic branch shortages still remain, however, it may be necessary to transfer more officers from over-strength specialties to the under-strength ones. In such cases, every effort will be made to assess the effect of such a move on each officer's career. Additionally, every effort will be made to make branch transfers on a voluntary basis, preferably selecting those officers who have had the most experience in the new branch.

All officers who have already been approved for CVI/VI will continue on active duty under the old criteria.

The proponent for AR 135-215 is MILPERCEN, ATTN: DAPC-OPPM. The point of contact for questions is the Personnel Actions Branch, Combat Arms Division, AUTOVON 221-0146/0147 or commercial (202) 325-0146/0147.

## DOUGHBOY AWARD

The Distinguished Doughboy Award is presented each year to an individual who has been instrumental in improving the morale and welfare of the Infantryman.

The award, established in 1980, is a brass-plated, World War I doughboy helmet mounted on a walnut base that is decorated with crossed rifles. Past recipients of the award are Bob Hope, H. Ross Perot, Bill Mauldin, Major General Aubrey S. Newman, and Senator John G. Tower.

Traditionally, the Doughboy Award is presented annually at the National Infantry Ball, and Infantry Branch, MILPERCEN is now accepting nominations for the 1985 award. The 1985 ball is scheduled for 9 November in Washington, D.C.

Any Army Infantryman may nominate a candidate for the award, keeping in mind the following criteria:

- The award is presented to an individual, not to an organization, in recognition of that person's direct efforts to aid the Infantryman.

- The award cannot be presented posthumously except when the recipient dies after he has been selected.

- The award *cannot* be given to active duty military members, to civilian executives who are active in the defense establishment, or anyone who is directly involved in or affiliated with an organization that has defense industry contracts.

- The recipient does not have to be present to accept the award.

- The final selection is made by the Commander of the U.S. Army Infantry Center and School at Fort Benning.

Nominations should be submitted to HQ MILPERCEN, ATTN: DAPC-OPE-I (CPT Sittnick), 200



Stovall Street, Alexandria, VA 22332-0400 as soon as possible.

## **PREFERENCE STATEMENT**

The Preference Statement (DA Form 483) is your most important link with your assignment officer, and you reduce your chance of going where you want to go when you do not see that there is a current statement in your file. (Currently, about 60 percent of the files managed in Infantry Branch do not contain a current preference statement.)

Because of the volume of requirements and the number of Infantry officers, the everyday job of making assignments is quite demanding and time sensitive. The assignment officer, using computer rosters, must identify the most available and best qualified officers to consider for a specific position. Once he has done this, the first document he consults in an officer's file is his preference statement.

If you have a current and detailed preference statement in your file, your assignment officer immediately knows several things about you:

- What position you now hold.
- What you want to do next (professional and personal considerations).
- How to get in touch with you (home and duty telephone numbers).
- Something about your family (personal data).

The reverse side of the preference statement form explains how to fill it out, but here are a few tips:

Under the section entitled "MACOM/Activity/Location," list as many locations as you prefer. Do *not* limit your selection to three locations just because three spaces are provided on the form. This is particularly important if your first three choices are Forts Carson, Lewis, and Ord. This is not to say that you should not request these locations, but because many other Infantrymen also request them, you need to give the assignment officer more flexibility in making your assignment.

Under "Duty Assignment," in-

clude Army priority assignment choices (ARMR, ROTC, USMA, USAREC, and DA Staff) as well as the traditional Infantry assignments. If it is your turn for an assignment away from troops and you have failed to state a clear preference, you are taking a chance on being assigned without regard to your wishes. Many Infantrymen would prefer, for example, a three-year assignment teaching or developing doctrine at the Infantry School to a three-year ROTC assignment, and assignment officers need to know this. Even though your assignment officer always tries to consult you before making an assignment, your location or duty requirement may make it impossible for him to reach you.

Under "Professional Development Comments," list your career aspirations. For example, if you are interested in a battalion or company command, as most Infantry officers are, request assignments that will improve your chances of getting one. Also include any comments that you consider pertinent to managing your career.

Under "Personal Considerations," list any personal problems that you want your assignment officer to consider. If you have a legitimate personal hardship, ask for a compassionate assignment in accordance with AR 614-100, or apply for the Exceptional Family Membership Program.

The timely submission of your preference statement is absolutely essential. As a general rule, if you want an overseas tour, your preference statement should reach MILPERCEN nine months before the desired reporting date and for a CONUS assignment, six months before.

It is suggested that the statements be submitted at these times:

- When the Personnel Qualification Record (DA Form 2-1) is initially prepared.
- About 9 to 12 months before the completion of an overseas tour or a stabilized tour within CONUS.
- Within 60 days before beginning a course of instruction at a CONUS

service school on a PCS, at a civilian institution, or in a training with industry program.

- Nine months before completing an initial utilization tour and at any time thereafter when preferences change (if you are a commissioned officer who has received his graduate degree through a full-time Army program that requires a utilization tour).

If you obtained a degree from another source (on your own or before you were commissioned), you are also invited to indicate such preferences. After studying DA Pamphlet 600-3 (Commissioned Officer Professional Development and Utilization), with Changes 1-3, specify in Item 12 of the form where you want a reutilization tour. This statement should include the type of assignment you prefer (personnel management, procurement, R and D staff officer, for example) and, if you know them, the agencies or headquarters to which you would like to be assigned periodically throughout your remaining years of service.

It is recommended that you keep a copy of your most recent preference statement so you will know what your assignment officer has in front of him as he tries to find you an appropriate assignment.

Infantry officers should forward their preference statements to HQDA, USAMILPERCEN, DAPC-OPE-I, Alexandria, VA 22332-0400.

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## **OPMS STUDY RESULTS**

Over the next three to five years, the Army's top leaders will direct the implementation of recommendations from a recently completed study of the Officer Personnel Management System. (OPMS is the system by which an Army officer's entire career, including professional development and duty assignments, is managed by the Army either at The Pentagon or at field operating agencies.)

The study focused on the active duty commissioned officers managed by MILPERCEN's Officer Personnel Management Directorate, but also

reviewed the special branches, the Reserve Components, and warrant officers.

The changes the group recommended will affect the management structure of all specialties, accession/separation, command, the quantity and quality of officers, the role of female officers, and the specialty proponent's role in OPMS.

The highlight of the study was the group's recommendation that the following major modifications be made to the dual-specialty system:

- Permit multiple career patterns to meet Army needs.
- Set up functional area designation windows for combat arms, combat support, and combat service support officers at different points to meet branch needs and Army requirements.
- Manage, develop, and promote officers by branch and/or functional area.
- Transfer some officers at their third and eighth years of service to other branches to support Army requirements.
- Identify officer professional development needs on orders to the gaining command.
- Develop a centralized Officer Personnel Management System for the U.S. Army Reserve.

The group's recommended changes concerning all specialties were:

- Expand the latitude for specialty coding, but centrally control the procedures for changing authorization documents.
- Set up rank-ordered coding for branch immaterial positions.
- Require the branch proponents to concur or non-concur in any changes to positions involving their branch or functional areas in any table-of-organization or table-of-distribution-and-allowances organization.
- Have all changes in branch or functional area approved at Headquarters, DA.
- Have HQDA issue specific instructions to the major Army commands and to the proponents to conduct a definitive and detailed review of authorization documents to identify and code all branch immaterial posi-

tions and recode all remaining positions.

- Adhere to special coding procedures for battalion staff positions, as directed by the Army's Chief of Staff.

In the area of accession and separation, the group recommended that the system do the following:

- Access officers at a steady rate annually.
- Improve precommissioning quality and objectives.
- Develop tough, centralized standards for "voluntary indefinite" duty.
- Carry out "selective early retirement" and submit legislation to allow reconsideration after two years.
- Conduct a joint-service/DOD review of the Defense Officer Personnel Management Act (DOPMA) once the results of all current officer-personnel-related studies are known.

On the subject of command, the Army has directed the following changes on the basis of the group's recommendations:

- Starting with the Fiscal Year 1986 lieutenant colonel and colonel command boards (which met in the Fall of 1984), no more than 10 percent of the available commands in each grade can be filled from the first-year eligibles. The remainder will be filled from the second, third, and fourth-plus years of eligibility without constraints.
- Beginning with the 1984 board for 1986 command, a three-panel board will be used for each of the combat arms, combat support, and combat service support command selections.
- No first-year eligibles will be placed on the alternate list.
- The current policy on centralized selection, slating, and list-publication will be continued wherever possible. Assignments of promotable majors and promotable lieutenant colonels who have been selected for command will ensure that they have been promoted before they assume command.
- In the future, basic training battalions and brigades will be commanded by Infantry officers.

On the matter of distributing officers in terms of both quantity and quality, the study group called for:

- Reducing the nominative process to meet the current policy of equal distribution of quality (matching individual qualifications to job requirements without concern for "promotion potential").

- Distributing officers by branch and functional area.

- Managing and developing officers in their branch and functional area through training and utilization in areas of concentration.

Noting that the specialty proponent must play a more central role in the OPMS operation, the group recommended that the Army do the following:

- Revise AR 600-3 to require, not just advise, proponents to complete their assigned responsibilities.
- Establish and resource a "standardized proponent cell" to integrate proponent responsibilities for each branch.
- Designate the commandant or director of each branch school as branch proponent.
- Designate a proponent for each functional area and skill.
- Clearly outline career paths and opportunities for command, overseas assignment, and civil schooling.

The group deferred further study of the warrant officer corps to a specially chartered group that is expected to issue its findings in the summer of 1985. And all issues and recommendations on education and training were directed for further study to the Professional Development of Officers Study Group.

Noting that each approved recommendation has a realistic time line for completion, Army personnel officials also point out that "grandfathering" provisions will be necessary in many areas. Procedures have been or will be developed to safeguard certain year groups, branches, and other specific groups of officers against significant disadvantage from these changes.

The OPMS Study Group's findings and recommendations are discussed more fully in the September-October 1984 issue of "Commander's Call."



# BOOK REVIEWS



The office of the U.S. Superintendent of Documents again has told us about a number of its new publications, two of which are reprints:

- **OMAHA BEACHHEAD** (S/N 008-029-00128-4. 1984 Reprint. 176 Pages. \$8.50). This publication first appeared in 1945 as part of the Chief of Military History's "American Forces in Action" series. It concentrates on the planning and preparations for the landings on OMAHA Beach on 6 June 1944, the landings themselves, and the subsequent seven days of fighting to secure the beachhead.

- **ST. LO** (S/N 008-029-00127-6. 1984 Reprint. 136 Pages. \$8.50). The original publication, which appeared in 1946, was also one of the "American Forces in Action" series. It covers the period 7-19 July 1944, the period that saw the most intense hedgerow fighting in Normandy. The narrative concentrates on the activities of the U.S. XIX Corps and concludes with the capture of St. Lo by units of the 29th Division.

- **CHEMICAL WARFARE** (S/N 008-020-00996-2. 1984. 16 Pages. \$1.25). This publication explains why the U.S. chemical defense and chemical weapons modernization programs are so important to the nation's security.

- **GRENADA DOCUMENTS: AN OVERVIEW AND SELECTION** (S/N 008-000-00408-1. 1984. 884 Pages. \$19.00). This publication contains an introduction to the documents that were captured during the 1983 Grenada operations and selections from them. The documents — primary sources — record the evolution of a communist state.

- **HISTORY, FROM AMERICA'S BEGINNING TO THE SPACE FRONTIER** (Catalog S-704, 1984. Free for the asking). Posters, books,

photopaks, and pamphlets — 59 items all told — are described in this recently issued catalog. Item prices range from \$2.75 to \$142.00.

All of these publications may be purchased from the U.S. Government Printing Office, Department MK, Washington, D.C. 20401.

Here are several interesting and informative books from other publishing houses:

- **CAEN: ANVIL OF VICTORY**. By Alexander McKee (St. Martin's Press, 1984. 40th Anniversary Reissue. 368 Pages. \$16.95). This book first appeared in 1964 under the title *Last Round Against Rommel*. It has not only been reissued (to mark the 40th anniversary of the Normandy landings), it has also been revised to include certain information that has come to light during the past 20 years. The author concentrates on telling the story of the fighting that took place in the British Second Army's area; his story is liberally laced with personal accounts of the events as seen by British, Canadian, and German soldiers and by the French inhabitants of the area. He concludes his story with the clearing of the Falaise pocket during the last week of August 1944.

- **HISTORY OF THE MILITIA AND THE NATIONAL GUARD**. By John K. Mahon (Macmillan, 1983. 374 Pages. \$20.75). The author is a well-known military historian with a long list of published books and articles to his credit. In this book, another in the distinguished series called "The Macmillan Wars of the United States," the author has given us a detailed, authoritative history of "America's irregular army," beginning with the colonial militia. Massachusetts in 1642 was the first colony to create a unit as large as a regiment. The present National Guard, of course, grew out of the volunteer por-

tion of the colonial militia. Mahon praises — and criticizes — but concludes that the National Guard today could "become more important than ever before." In fact, a reader would have to say that he comes down squarely on the National Guard's side.

- **THE 1985 MILITARY HISTORY CALENDAR**. By Raymond R. Lyman (Paladin Press, 1984. \$8.95). Each date on this unique calendar features a military event that occurred between 1793 and 1983 along with short biographies of important military personages. Each month of the year is devoted to a particular subject — war in the trenches 1914-1918, for instance, and Korea 1950. This would make an excellent gift for a military history buff.

- **FIGHTING ARMIES**. Three volumes. Edited by Richard A. Gabriel (Greenwood Press, 1983. Volume I, 286 Pages, \$35.00; Volume II, 224 Pages, \$35.00; Volume III, 320 Pages, \$35.00. All three volumes, \$95.00). These volumes contain a "combat assessment" of 32 of the world's armies. Each assessment has been prepared by a knowledgeable essayist who knows well the area of the world about which he writes. The editor, who is well-known in U.S. military circles for his criticisms of the U.S. Army's performance in Vietnam, collaborates with other writers to assess the armies of the U.S., the Soviet Union, Jordan, and Australia. He still does not think much of the U.S. Army and continues to denigrate its officer corps. Although he admits that the Soviet Army's officer and noncommissioned officer corps rate poorly, he still feels that the Soviet Army is "unmatched by any army in the world today." If read with care, this series can be a useful reference tool.

- **THE MILITARY BALANCE**,

1984-1985 (The International Institute for Strategic Studies, 1984. 159 Pages. \$14.00, Softbound). This annual, a quantitative and authoritative assessment of the military establishments and defense expenditures of countries throughout the world, examines the facts of military power as they appeared on 1 July 1984. As usual, there is no attempt to compare one country's military capacity against others. Overall, the Institute finds that while the armed forces of the world in general are still being modernized, that process is proceeding at a slower pace than in previous years. Overall, this publication remains one of the best of its kind.

Here are a number of other publications you should find interesting:

**A TIME FOR TRUMPETS: THE UNTOLD STORY OF THE BATTLE OF THE BULGE.** By Charles B. MacDonald (Morrow, 1984. 712 Pages. \$19.95). Reviewed by Major General Albert H. Smith, Jr., United States Army, Retired.

From one of our most distinguished World War II historians — and a survivor of the fighting — you would expect another military classic. You get that and a lot more in Charles MacDonald's latest book. For example, today's professional soldiers and history buffs will appreciate the U.S. regimental and battalion organization charts so clearly presented on page 629 as well as the order of battle details on pages 630-655. Throughout the volume, too, many good sketch maps help the reader follow the action.

MacDonald is a master at describing the situation at Supreme Allied Headquarters and then quickly focusing down on small units fighting the battle. He tells of Hitler's dream of splitting the ultra-capitalist and ultra-Marxist states. A great victory on the western front, Hitler declared, would "bring down this artificial coalition with a crash." Also portrayed are the senior generals on both sides, as they plan their strategies and react to crises on the battlefield.

Today's soldiers can learn valuable lessons as the text follows small unit leaders, good and bad, into the heat of

that 1944-1945 conflict. American ingenuity and initiative often carried the day, and gallant deeds by individual soldiers then still make us feel proud.

The author spent five years and made five lengthy trips through the area to make certain he could tell his story accurately from both the U.S. and German viewpoints. And he has.

Regretfully, the final offensive phases of the Battle of the Bulge are missing. Except for a comprehensive summation, the book ends at Houffalize, Belgium, as the First U.S. Army attacking from the north meets the Third U.S. Army attacking from the south, thereby sealing off the German penetration. Worthy of inclusion in a final chapter would have been the XVIII Airborne Corps' advance east through waist deep snow during the last ten days of January and the early days of February 1945.

This book is a World War II classic, though, a must addition to any professional military library. Our 1985 platoon, company, and battalion commanders should thank Charles MacDonald for providing many good war stories to pass on to the troops.

---

**BATTLE OF THE BULGE — THEN AND NOW.** By Jean Paul Pallud (Bill Dean Books, 1984. 532 Pages. \$49.95).

For any veteran of the Battle of the Bulge, or for anyone interested in the military history of World War II, this should be an enthralling book. It certainly serves as a splendid complement to the MacDonald book reviewed above. The author's "then and now" approach — a trademark of the British magazine *AFTER THE BATTLE*, for which he works — is particularly effective. He claims that his book provides "the first correct identification of both the locations and the units shown in most of the illustrations, and this applies particularly to the pictures of German origin."

The bulk of the narrative recounts the operations of the German units; most of the Allied actions are told in the captions that accompany the more than 1,000 photographs and other il-

lustrations. Of particular interest is the author's description of the "battlefield today" — the numerous memorials and museums that dot the area over which the fighting raged some 40 years ago.

This is a most notable addition to the literature of World War II. Don't miss it.

---

**JANE'S INFANTRY WEAPONS, 1984-85. Tenth Edition, Edited by Ian V. Hogg (Jane's Publishing, 1984. 957 Pages. \$125.00).**

Ian Hogg has put together for his publisher another outstanding volume in Jane's continuing series on the world's infantry weapons — from revolvers and pistols to antiaircraft and antitank weapons — to include data on body armor, electronics and optics, training aids and simulators, and national inventories.

Hogg's foreword is not particularly lengthy, but it is replete with pithy comments, a Hogg trademark. He devotes most of the few pages to the "observation of the present and forecasting of the future." (It does seem, though, that the U.S. pistol program is moving at a faster pace than Hogg anticipated.)

There is no better weapon reference book on the market. Once again, Ian Hogg and his staff are to be congratulated for turning out a fine product.

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**TOUCHED WITH FIRE.** By John Wheeler (Franklin Watts, 1984. 213 Pages. \$16.95). Reviewed by Nicholas Sellers, Radnor, Pennsylvania.

John Wheeler has written a remarkable book. It does not revive any stale debate on the Vietnam War or the drifting policies of the Johnson administration. Nor does Wheeler indulge in bitter recriminations against the "protest generation," the negativist subculture that so briefly dominated American society in the early 1970s.

Instead, the theme of this book is wholly positive. Wheeler looks at the present status of the Vietnam veteran and how he has emerged from the



shadows of prejudice of 15 years earlier to take his place in society. Wheeler sees the veteran who was "touched with fire" not as someone maimed but as a stronger and more valuable member of the society that had so recently tried to reject him.

Wheeler is a West Point graduate who served in Vietnam in 1969, at the very height of the war. Leaving the service in 1971, he went to Yale Law School and achieved that intellectual *summun bonum*, editorship of the *Law Review*. He is now special counsel to the chairman of the Securities and Exchange Commission in Washington. He was chairman of the board of the Vietnam Veterans Memorial in Washington, and serves now as director of the President's Vietnam Veterans' Leadership Program. He has written extensively, including an earlier book, *The Wounded Generation: America After Vietnam*.

The book that is under review here is really in three parts. The first looks at the war and the soldier's world; the second part reviews American society and its attitudes in the 1960s and 1970s. The third part examines the Vietnam veteran's place in society today. This latter part is the substance of the book, and it presents a strong and optimistic view. Wheeler sees the veteran as a person whose wartime experiences make him a better member of society, one who is now gaining a belated acceptance and proving himself among his peers.

One of the most appealing qualities of John Wheeler's book is his understanding of and sympathy for the young soldier who did his duty and was so ill paid. Although separated from the service, Wheeler continues to show that sense of responsibility that is expected of the professional military leader. At the same time, it is remarkable that he is so restrained and even-tempered throughout. This very restraint serves only to emphasize his larger themes.

Certainly there are indications that the prejudice against the soldier who served in an unpopular war may have abated. But there is equally strong

contrary evidence — as in the views espoused by present antimilitary spokesmen — that the soldier is still disfavored. We therefore need all the more a strong voice such as John Wheeler's to set the balance right.

---

**ARMS TRANSFERS UNDER NIXON: A POLICY ANALYSIS.** By Lewis Sorley (The University of Kentucky Press, 1983. 231 Pages. \$22.00). Reviewed by Doctor Joe P. Dunn, Converse College.

It has become conventional wisdom to criticize arms transfers as a cause of regional instability and war. A 1977 Council on Foreign Relations report, for example, charged that the U.S. extended excessive arms sales to countries peripheral to American security.

Lewis Sorley, a former intelligence officer, policy planner, and student of public policy, disagrees. In this study of Nixon policy, he argues that arms transfer may have been the single most effective means of conducting the administration's foreign policy.

Sorley points out that the bulk of arms in the period went to the Middle East and to western Europe, hardly areas peripheral to American concerns. His book concentrates primarily on the Middle East where most of the arms went, where the most dramatic policy changes occurred, and where, he asserts, the most spectacular successes were achieved. These included the extraction of the Egyptians from the Soviet sphere, the improvement of the peace process between Israel and its neighbors, the restriction of Soviet influence in the region, and the building of Iran and Saudi Arabia into forces of stability in the area. Of course, not all of these "successes" were lasting.

While the book is a bit superficial, and I am not totally convinced by the argument, it is an interesting study and I recommend it to the professional soldier.

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**FIVE TRAGIC HOURS: THE BATTLE OF FRANKLIN.** By James Lee McDonough and Thomas L. Con-

nelly (University of Tennessee Press, 1983. 217 Pages.) Reviewed by Major Don Rightmyer, United States Air Force.

The war was drawing steadily to a close. Sherman's march for Atlanta and the sea was well under way and the only Confederate force that stood near the Union advance was John Bell Hood's army. Rather than force a confrontation near Atlanta, though, Hood struck out toward the northwest in a fateful drive for Nashville. The result was one of the last climactic battles of the Civil War, the death of six generals, and the South's loss of all hope in the western theater.

This interesting story is an excellent joint project by two accomplished historians who have also produced noteworthy independent studies on the Army of Tennessee and its campaigns. This work upholds their established reputations for excellence in Civil War history.

McDonough and Connelly don't just unfold the movements and events leading up to the battle of Franklin. Their analysis of Hood and his actions borrows from psychological history and provides an interesting insight into Hood's possible motives in relentlessly pushing the attack against the Union entrenchments at Franklin. A shining young officer at the war's outset, Hood had suffered serious wounds in earlier battles and had lost much of the glamour that had previously surrounded him. According to the authors, Hood was almost hellbent on making the Franklin attack regardless of the outcome or cost in lives in the apparent hope that it would help regain some of his lost glory.

This book reflects the good research and analysis that one would expect from these two authors. It is well-written military history and a good coverage of a little known but savagely fought battle.

---

**AMERICANS AS PROCONSULS: UNITED STATES MILITARY GOVERNMENT IN GERMANY AND JAPAN, 1944-1952.** Edited by

**Robert Wolfe (Southern Illinois University Press, 1984. 563 Pages. \$27.50.) Reviewed by Lieutenant Colonel John C. Spence III, United States Army Reserve.**

This documentary record of the post-war occupation of Germany and Japan is the result of a symposium conducted at the Smithsonian Institution in May 1977. It includes the papers presented and the transcripts of panel discussions that examined in detail the formulation and implementation of U.S. occupation policy in these nations. Significantly, the participant-historians examined the long-range consequences of the post-war occupation as it influenced subsequent U.S. diplomatic and military policy. The areas of interest to both the historian and the contemporary civil affairs specialist include educational reform, industrial reorganization, prosecution of war crimes, and press censorship.

It is worthy of note that many of the participants in the symposium had served in active duty roles in the post-war occupation period and had later achieved academic distinction as professional historians and social scientists.

Thus, the great value of this book is that the historical insights come from

true military historians, many of whom had first-hand, personal experience. Military historians will find interesting the long-range development of U.S. occupation policy as it affected Germany. Such planning, which included the establishment of a Civil Affairs School at the University of Virginia, began long before the surrender of Germany in 1945.

This book has considerable contemporary value and can serve as an excellent reference book for the officer assigned to G-5 (civil affairs) on a division staff. Of greater importance is the fact that civil affairs is an important staff responsibility that cannot be overlooked or ignored.

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**ON WINGS OF EAGLES. By Ken Follett (Morrow, 1983. 442 Pages. \$16.95). Reviewed by Captain Bryan Evans III, United States Army.**

Ken Follett's book is not about a raid, although it is about a rescue mission. It is, more importantly, a book about leadership and perseverance in the face of adversity. In this capacity it also serves as a fitting epitaph for one man — Colonel Arthur D. "Bull" Simons.

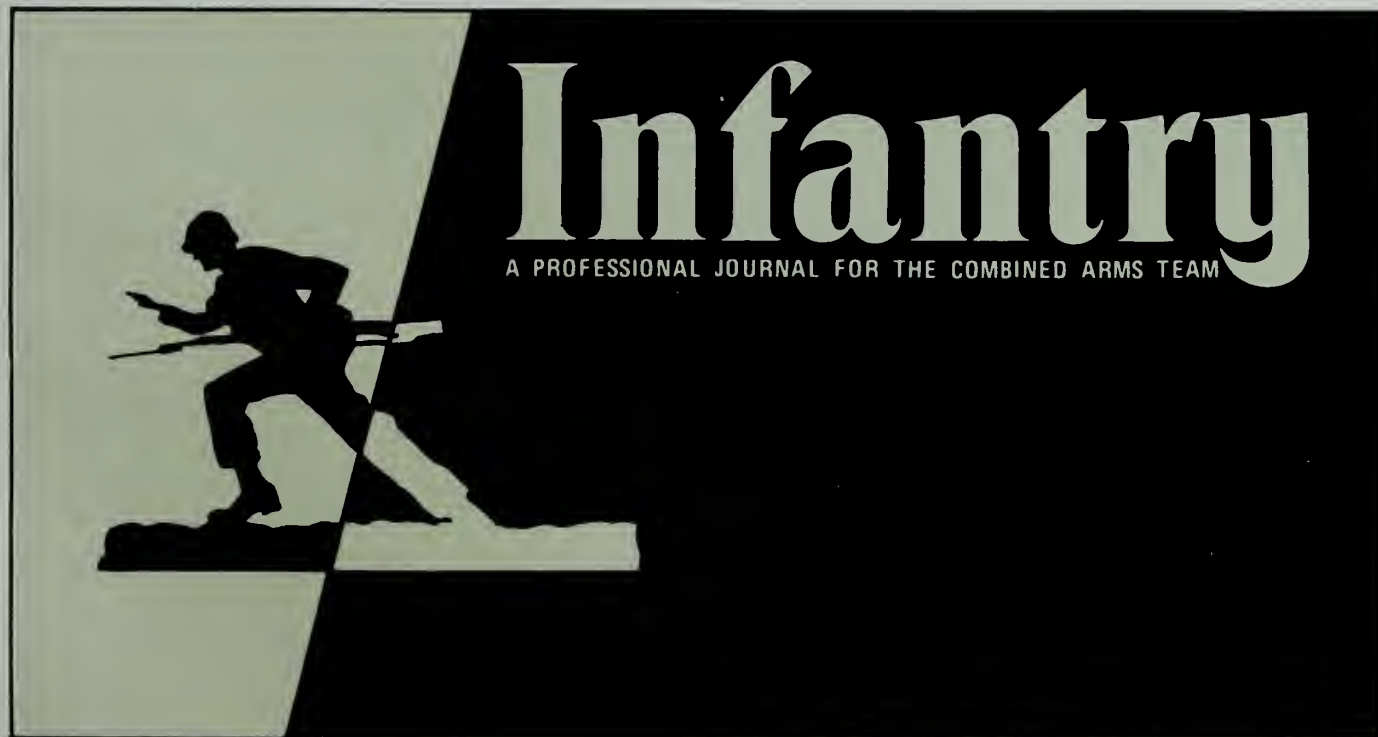
Several months before the American embassy in Iran was taken over by

militant Iranian students, two top executives from the EDS Corporation, a U.S. electronics firm with contracts in Iran, were jailed by Iranian officials under false pretenses. H. Ross Perot, owner and president of the corporation, pushed his resources to the limits to find a legal solution to this dilemma. He wanted his people freed and returned to the United States.

Unable to achieve this, and the effort never ceased, Perot decided to take a more direct approach — a rescue mission. And in keeping with his personal belief of getting the best man for the job and then letting him do it, Perot felt there was only one man qualified to plan, train, and lead the effort, the recently retired "Bull" Simons.

The book is important because it provides us with the characters of two men whose principles, and whose devotion to those principles, ruled their actions. Both Perot and Simons were devoted to their friends, their families, and their duty, but Simons in particular is depicted as a man with a purpose — to rescue people.

Overall, this is a well-written, well-illustrated publication. It may not be what some expect, especially from Ken Follett, but remember that "Eagles don't flock — you have to





find them one at a time." This is a book about leadership, and good leaders can be hard to find.

**TRIUMPHANT FOX.** By Samuel W. Mitcham, Jr. (Stein and Day, 1984. 224 Pages. \$18.95). Reviewed by Captain John C. Edgecomb, United States Army.

This is the author's third book about Erwin Rommel. Here he concentrates on Rommel's life up to 31 December 1941, but deals almost exclusively with Rommel and his battles in North Africa in 1941.

This is an in-depth and detailed account of Rommel's 1941 battles, and Mitcham is meticulous in depicting Rommel's strategy and personal thoughts, the available German intelligence, and the actual conduct of each battle. The author also pays adequate attention to the British side. Through this combination, Mitcham not only presents Rommel's failures and successes, but also his personal strengths and weaknesses.

This well-written book quickly develops and maintains the reader's interest throughout. Mitcham also makes use of numerous battle diagrams and strength charts to buttress his narrative, a feature often

missing in similar books. It is highly recommended reading for the professional infantryman.

#### RECENT AND RECOMMENDED

**INDUSTRIAL CAPACITY AND DEFENSE PLANNING.** Edited by Lee D. Olvey, Henry A. Leonard, and Bruce E. Arlinghaus. Lexington Books, 1983. 169 Pages. \$19.95.

**MEDIEVAL MILITARY DRESS, 1066-1500.** By Christopher Rotbero. Sterling, 1984. 153 Pages. \$12.95.

**THE DEMANDS OF HUMANITY: ARMY MEDICAL DISASTER RELIEF.** By Gaines M. Foster. U.S. Army Center of Military History. For sale by the U.S. Government Printing Office. S/N 008-029-00124-1. 1983. 188 Pages. \$5.00.

**THE ENCYCLOPEDIA OF DRUG ABUSE.** By Robert O'Brien and Sidney Cohen. Facts on File, 1984. 396 Pages. \$40.00.

**SOVIET MILITARY THINKING.** Edited by Derek Leebaert. Allen and Unwin, 1981. 300 Pages. \$14.95.

**CURRENT MILITARY LITERATURE.** Volume 2, Numbers 1 and 2. Edited by J.I.H. Owen. The Military Press, 1984. 119 Pages.

**MARKET-GARDEN CORRIDOR.** By Tonie and Valmai Holt. Holt's Battlefield Guides. David and Charles, 1984. 64 Pages. \$4.95, Softbound.

**SECURITY AND ARMS CONTROL: THE SEARCH FOR A MORE STABLE PEACE.** Revised September 1984. United States Department of State, Bureau of Public Affairs, 1984. 76 Pages, Softbound.

**HOW DEMOCRACIES PERISH.** By Jean-Francois Revel. Doubleday, 1984. 376 Pages. \$17.95.

**THE WORLD WAR II QUIZ AND FACT BOOK, VOLUME 2.** By Timothy B. Benford.

Harper and Row, 1984. 246 Pages. \$8.95, Softbound.

**U.S. GOVERNMENT BOOKS, Catalog Number R-4, Volume 2, Number 3.** U.S. Government Printing Office, 1984. 56 Pages, Softbound. Free for the asking.

**REINHARD HEYDRICH.** By Edouard Calic. Translated by Lowell Bair. Morrow, 1984. 272 Pages. \$15.95.

**IDEAS AND WEAPONS.** By I.B. Holley, Jr. New Imprint by the Office of Air Force History, 1983. 222 Pages. For sale by the U.S. Government Printing Office.

**PUTTING UP WITH THE RUSSIANS.** By Edward Crankshaw. Viking, 1984. 269 Pages. \$17.95.

**CORPORATE COMBAT: THE APPLICATION OF MILITARY STRATEGY AND TACTICS TO BUSINESS COMPETITION.** By William E. Peacock. Facts on File, 1984. 169 Pages. \$15.95.

**INTO THE MOUTH OF THE CAT: THE STORY OF LANCE SIJAN, HERO OF VIETNAM.** By Malcolm McConnell. Norton, 1984. 253 Pages. \$13.95.

**WINGS OF WAR.** By Laddie Lucas. Macmillan, 1984. 416 Pages. \$19.95.

**THE SECRET ARMY.** By Bor-Komorowski. First U.S. Edition. The Battery Press, 1984. 407 Pages. \$18.95.

**SPITFIRE: A TEST PILOT'S STORY.** By Jeffrey Quill. University of Washington Press, 1984. 332 Pages. \$19.95.

**AN ILLUSTRATED GUIDE TO THE MODERN U.S. ARMY.** Edited by Richard O'Neill. ARCO, 1984. 160 Pages. \$9.95.



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# **From The Editor**

## **1985 INFANTRY CONFERENCE**

**The 1985 Infantry Conference will be held at Fort Benning during the period 23-26 April 1985. All members of the Infantry Association are invited to attend. Many of the sessions this year will be open to all attendees, and there will be enough space at these open sessions to accommodate all who want to attend. A formal agenda is now being developed, and an Association luncheon is being planned.**

**Infantry Association members who would like to attend the Conference are asked to contact the editor of INFANTRY as soon as possible. They will be sent copies of the formal agenda and information on the availability of housing, as well as other information of a general nature.**

## **HOT LINE**

**The Infantry School maintains a hot line for military callers for around-the-clock contact with the field. If you have a general question, or a question dealing specifically with the Army Training and Evaluation Program (ARTEP), or if you have something of an immediate nature to pass on, the number to call is AUTOVON 835-7693, commercial 404/545-7693.**

**If you have a lengthy question or comment, please send it in writing to Commandant, USAIS, ATTN: ATSH-SE, Fort Benning, GA 31905-5452**

## **BACK COVER:**

**Soldiers of the 4th Battalion (Airborne), 325th Infantry, assigned to the Southern European Task Force, conduct MOUT training.**







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# Infantry

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MARCH APRIL 1985



A Department of the Army Publication

65th Year

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The United States Infantry — the backbone of our country's land forces.



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# Commandant's NOTE



**Major General John W. Foss**

Chief of Infantry



Since becoming Chief of Infantry, I have visited many of our infantry units and have talked with our infantrymen the world over. I have been impressed with what I have seen and heard, and I can't help feeling a surge of pride when I think of how far we have come in the years since I first joined the infantry's ranks some 35 years ago.

At the same time, though, I am concerned that our Infantry community could become a divided one. On one side would be infantrymen who hold that there is only *one infantry* and on the other, those who believe there are many — light, airborne, air assault, mechanized, and the like — and that there can no longer be just one.

In my way of thinking there is indeed only *one Infantry* (with a capital "I"), but, at the same time, there are *several infantries* (generic, with a little "i"). Every infantryman, no matter what kind of label precedes his name, is a plain vanilla infantryman first; and his basic mission has not changed since our Infantry came into being on 14 June 1775. That mission is to get to the battlefield and close with the enemy by fire and movement to destroy or capture him, or to repel his attack by fire, close combat, and counterattack — the hardest task on the battlefield.

All infantrymen, therefore, spring from one source; all are trained in those things that have sustained Infantry units on various battlefields for more than 200 years: the use of terrain, camouflage, marksmanship, and stealth; the basic tactics of fire and movement; and the taking and holding of ground. It is only after they have learned these common lessons that infantrymen can move on to become, if you will, "specialist" infantrymen.

We have a variety of different infantry units — from Bradley to airborne — whose sole reason for existing is to put infantrymen on the battlefield. These units operate at different paces and within different combined arms teams. Bradley infantry units, for example, operate with M-1 tanks, DIVAD guns, self-propelled howitzers, attack helicopters, and close air support aircraft in highly mobile armored task forces that move quickly on the battlefield. They rely on speed, firepower, and shock action, and do considerable fighting while on the move. When the Bradley units dismount their infantry for battle, these infantrymen can be assured of a high volume of supporting fire, especially from the 25mm cannon on their own vehicles. The leaders of these units — the platoon leaders, the company commanders, and the battalion commanders — therefore must learn to orchestrate the firepower and mobility of their particular combined arms team. Yet the Bradley rifle teams, dismounted for a fight, perform the same tasks other infantrymen do — they take and hold ground.

An airborne infantry task force, on the other hand, introduced into an area by parachute assault, normally fights as part of a combined

arms team made up of light artillery, light mortars, tactical air support aircraft, and, possibly, helicopters. It relies on surprise, infantry ground mobility, and small arms firepower to accomplish its mission. Accordingly, its leaders have significantly different tasks to plan for, coordinate, and execute than the Bradley infantry leaders have; yet the airborne rifle squads perform the same tasks and fight the same kind of fight the dismounted Bradley infantry units do to accomplish these time-honored infantry tasks of taking and holding ground. These two examples, therefore, describe both the sameness of one Infantry and the great diversity in the many types of infantry units.

Many well-meaning officers, generally not Infantry officers, often suggest giving propensity for our mechanized infantry to the Armor School or turning air assault infantry over to the Aviation School. Unfortunately, these officers (and a few infantrymen as well) have become enamored of the means rather than the end — with the transportation (the helicopter) or the base of fire (the Bradley). They seem to have forgotten why those vehicles exist — to get infantrymen onto the battlefield.

What would happen if these suggestions were adopted — if these types of infantry were separated from the rest? The focus in those units would probably shift from their infantry role — the primary one — to their fighting vehicles or helicopters. This change in focus would be a normal reaction within the armor and aviation communities, but it is also the primary reason why ONE INFANTRY under one proponent is so vital to the future of the Infantry in the U.S. Army.

Our Army is unique because of its worldwide orientation. Our country has treaties and security arrangements with many different nations. We have infantry units stationed in many of those countries. We cannot afford to have infantry officers and noncommissioned officers hold a view so narrow and be so specialized that they cannot serve effectively in different types of infantry units around the world.

Furthermore, situations such as that in Vietnam will continue to develop in which infantry soldiers of all grades and backgrounds will be asked to function in a single unique infantry role. They must be ready for this. But to be ready, they must be trained and experienced in a multitude of specialties — mechanized, airborne, air assault, motorized, and the like.

Yes, there are several infantries — and there will always be several — but there is only one overall Infantry. And its mission — our mission — has not changed.

In the future some of our present types of infantry units no doubt will be replaced by newer ones. But all of them will continue to be trained in the Infantry's central tasks, and there will still be a need for cohesiveness to unify the several infantries into one Infantry.

# INFANTRY LETTERS



## STOWAGE ON THE ITV

The article "Israeli M113's," by Captain Edwin Kennedy (INFANTRY, July-August 1984, page 6), brings up a possible solution to a problem — the lack of space on the M901 ITV.

Present load plans put the required baggage of the ITV crew on the trim vane and in the fighting compartment of the vehicle. Thus, the crew with the required load of ammunition (TOWS and M-60) and personal equipment must be gymnasts to load the launcher with a missile.

The best solution to this problem would be a cargo rack such as the one on the modified Israeli M113 on both sides of the ITV to accommodate the personal equipment of the crew. Such a rack would be a bolt-on device with a lid that would fit flush to the upper deck of the vehicle to prevent damage from the launcher's backblast.

The cargo rack could be fabricated by any battalion welding shop and could be removed in the motor pool when space between vehicles became a factor.

W.E. BARBOUR, JR.  
Captain, Infantry  
APO New York

## BATTLE DRILL TRAINING

Sergeant Robert A. Linthicum, in his letter to the editor (September-October 1984, page 49), is right about the need to conduct more battle drill training. For the past few years, the Army Research Institute (ARI) has conducted research into squad and platoon level training in response to requests from the Army Training Board (ATB) and the 7th Infantry Division.

On the basis of identified needs for detailed training and evaluation guidance, ARI worked with the ATB, the 7th Infantry Division, and the U.S. Army Infantry School to develop a prototype drill trainers' package for infantry squads. The package features a handy easy-to-read, pocket-sized training and evaluation booklet. The drills have since been adopted within the 7th Infantry Division and implemented by elements of the 82d Division, as well as by scattered infantry units throughout the Army.

The Infantry School is also working to incorporate more drill concepts and materials into its new training literature for use by infantry units Army-wide.

Again, Sergeant Linthicum's remarks are accurate and thoughtful. Certainly, drills provide a powerful tool for efficiently conducting standardized training and producing combat-ready infantry squads and platoons.

ELDRA JACKSON, JR.  
SFC  
U.S. Army Research Institute  
Presidio of Monterey, California

## OBSERVATIONS ON MORTARS

As a former heavy mortar commander in a light infantry unit, I would like to offer some observations on the current dialogue concerning infantry mortar requirements.

The infantry needs the "hedge" of a light, organic weapon to accompany its maneuver elements and provide indirect fire support. There may be far too many occasions when tactical air, naval gunfire, attack helicopters, or direct support artillery either will not be available early enough (in an airhead, amphibious beachhead, or

mountains, for example), or will be diverted to higher priority missions (such as a deep strike of armored targets).

I'm not convinced, however, that today's perception of a mortar system fits the infantry's needs. Traditionally, mortars have been manpower-intensive systems, with bulky man-pack components, short engagement ranges, long set-up times, and slow rates of fire.

The trade-off to resupply mortars with higher sustained rates of fire (the XM252 81mm mortar, for example, with its advertised rate of fire of 15 rounds per minute) in units with limited transport could mean that riflemen will become load-carrying porters on a scale not seen since the Attu Campaign of 1943.

The improved rate of fire and the trailer-mounting of a 120mm mortar system do not provide any noticeable breakthrough in overall force productivity.

Given today's force, which is fixed at about 780,000, and tomorrow's force, which is faced with a declining manpower pool of eligible personnel, productivity considerations should influence weapon system developments. The infantry should try to reduce its allocation of manpower per unit of expended firepower. And the exploration of any linear, peripheral system improvements should be expanded to consider alternate weapon systems.

Among your recent contributors, for example, James Larsen (November-December 1984 issue, page 49) has suggested the tactical utility of the 2.75-inch (70mm) rocket as an infantry mortar substitute, or complement. I concur with this suggestion and believe that the 9th Infantry Division is now evaluating a "Hydra-70" 70mm rocket configuration for the HMWWV in a close combat role.



As a second suggestion, I'd like to offer a mortar system with multiple barrels on the same mountings. I'm not an engineer, but it seems to me that the mounting of three 81mm or 107mm tubes on a single gun carriage would result in significant savings of crew personnel. When one considers the desired "sheaf-on-target" requirement, one can visualize a rigid mounting of tubes on the same carriage, such as to produce an "open" sheaf at prescribed ranges. Further, with manual gears, a closed or converged sheaf could also be obtained.

The 120mm mortar with trailer chassis, for instance, could be expanded into a three-barrel system, manned by essentially the same crew. The feasibility of this concept would need further study, of course, but the effect would be to replace a 15-man mortar platoon of three tubes with a 5- or 6-man crew and a multi-barrel mortar system.

In addition to manpower productivity considerations, the infantry has not yet come to grips with its self-defeating concept of allocating firepower to a reserve status. Unlike other fire support systems, infantry mortars are habitually assigned to a reserve status whenever their parent unit is placed in reserve. This luxury should not be tolerated, however, in the firepower-scarce light infantry division. Hopefully, a new doctrine and tactical employment concept is already being developed at the Infantry School to overcome this long-term tactical firepower deficiency.

Too, the development of an antiarmor capability for infantry mortars may result in idle tube time for mortar units. Artillery analyses of the effect of Copperhead missions on the total idle time of a firing battery should be studied before adopting this capability for the infantry mortar.

The infantry should also rethink its traditional countermortar mission. A serious gap in engaged mortars could develop between the assigned mortars of two attacking motorized rifle divisions and those assigned to a defending U.S. light infantry division — a ratio of 3.3:1. Although artillery will

complement mortars in executing a countermortar fire plan, the long-term sustainment of artillery fire priority to this mission cannot be assumed.

The response time for countermortar missions could be reduced by creating mortar "hunter-killer" teams in forward brigade areas. A typical team would include an AN/TPQ-36 countermortar radar element, which has a direct communications link to an infantry mortar/indirect fire support element. Target information on enemy mortars would be transmitted from the AN/TPQ-36 element to the infantry fire support element first, before being passed on to the FDC of the direct support artillery battalion. Currently, no such direct link is prescribed by doctrine.

A final thought. Another way to reduce response time is through the tactical application of the "squad-leader adjust" method of fire. While the mortar crew remains in defilade, the squad leader serves as his own observer, occupies an observation post within 100 meters of the mortar position, establishes a wire line from himself to the mortar position, and controls the mission directly. Under this method, the squad leader provides burst corrections in range (charge) and deflection (mils) directly to the gunner. The use of wire permits an effective ECM response to active enemy radio jamming and emission-locating measures.

RICHARD K. FICKETT  
COL (Retired), Infantry  
Annandale, Virginia

### THOUGHT-PROVOKING

I found your November-December 1984 issue most thought-provoking, especially the letter by Lieutenant Colonel Julian M. Olejniczak (page 49) and the article by Captain Samuel K. Rock, Jr. (page 35).

In regard to the article, "Training New Lieutenants," it is part of our job as NCOs to train new lieutenants; we accept the fact that they are just that

— new — and need help.

Captain James A. Hales's comments in his letter on mortars (page 49) reminded me of Vietnam. I remember being greatly relieved when we stopped carrying our 4.2-inch mortars out in the field and started carrying our 81s. Then I saw two Vietnamese soldiers strolling down the road. One had a complete 60mm mortar on his shoulder; the other had a pole with 10 rounds lashed to each end. Two men, a mortar, and 20 rounds. And I couldn't help wondering how many men it would take to match that with an 81. It seems to me that Captain Hales is right on the money — we need a *lot* more *small*, light mortars in the infantry.

Finally, I found "A Forgotten War," by Captain Michael A. Phipps (page 38), an extremely interesting article and am trying to obtain the DA pamphlets listed in it.

DEAN A. SIAS  
SSG  
Region V NCO Academy  
Riverton, Utah

*EDITOR'S NOTE: We have had several inquiries about the pamphlets known as the German Report Series. We understand that many of them are available through the Army's publications channels. Some are also available from the Government Printing Office, Superintendent of Documents, Washington, DC 20401. We do not know the cost from GPO, but payment can be made by VISA or MasterCard number (expiration date should also be included). In addition, the pamphlets can be found in the National Archives and should be available in any library that has a Government documents section.*

### HEAT INJURY

Reference "Preventing Heat Injuries," by Captain Charles D. Henry (July-August 1984, page 32), there are several things a soldier can do to avoid heat injury. Among them are to

monitor his urine output and body weight.

In severe conditions a soldier should drink enough water to urinate for 7 to 10 seconds every two hours. If he urinates less than that, or if the urine is dark, he should drink more water.

Any soldier who has lost two percent of his body weight (or four pounds) in one day, should drink the weight back in water. (Water weighs eight pounds per gallon.) If he has lost four percent (or nine pounds), he should take immediate action as if he were a heat injury victim. These kinds of feedback mechanisms are essential because it is very difficult (indeed almost painful at times) to drink the volume of water needed in hot weather.

Unit leaders should do all of the above plus the following:

- Identify high-risk, heat-injury-prone soldiers (unacclimatized, injured or sick, overweight or heavily loaded, exhausted, previous heat injury, or not physically fit) and assign a low-risk "buddy" to him. (See also "Training in the Heat," by Captain Deirdre Christenberry and Lieutenant Colonel David E. Johnson, *INFANTRY*, March-April 1984, page 29.)

- Establish control procedures, SOP, and the like.

- Adjust work and rest cycles, move work to shade, schedule work during cooler hours of the day.

- Adjust clothing and equipment. (A 40 percent of body weight load, or 62 pounds, moves the soldier up into the next higher heat category.)

- Emplace and monitor WBGT/Botsball devices in work sites.

- Plan for increased water; hold water-drinking formations and command soldiers to drink.

- Inspect, inspect, inspect!

The kinds of psychological reactions Captain Henry describes have been documented with as little as two percent dehydration in both hot and cold environments. Leaders should be alert for irritability, apathy, or withdrawal as signs of dehydration, and treat accordingly.

The National Training Center experiences also raise some important

points about deployment and acclimatization. Several years ago, the British deployed a unit to Africa and took 50 percent heat injury casualties in several days; this, of course, rendered them combat ineffective. They have since initiated artificial acclimatization programs for deployable special operations units. These programs consist of exercising in a hot area (gym or room) several times a week. U.S. medical research and development folks are now researching that issue. Commanders with special missions to hot climates should consider the same kind of program.

JAMES LARSEN  
Hampton, Virginia

### BAYONET DEBATE (FINAL REBUTTAL)

In their engaging reply to my irreverencies (see *INFANTRY*, May-June 1984, p. 49), Major William Humphrey and his bayonet crew from Fort Eustis (September-October 1984, p. 49) actually reinforce my point. Properly understood, their scenario shows that the bayonet confers an advantage only under the most improbable conditions:

- Two combatants must meet face to face and *alone*. The presence of another soldier with a functioning rifle makes the bayonet irrelevant.

- The situation must somehow exclude the use of grenades.

- Neither the attacker nor the defender can have a functioning, loaded firearm.

- The attacker must know for sure that the defender's rifle is disabled or empty. (Would the Fort Eustis cohort be so eager for battle if they were only 50 percent sure my rifle was jammed?)

All of these circumstances must be present for the bayonet to be a credible weapon. And what then? These conditions make plain what everyone knows anyway: that the bayonet is likely to be used only when the opponent is obviously defenseless. (Various writers of World War I memoirs have remarked that the chief use of the bayo-

net was against men with their hands up; and that was the army and war in which the "Spirit of the Bayonet" business started!)

While only negligible as a weapon, the bayonet is positively harmful as a symbol: It promotes an unrealistic mental image of modern infantry war. The trainee must either swallow that image and enter combat with false ideas or invoke his common sense and reject his instructor's message. Why confront young soldiers with such alternatives?

So if we're serious about matters like lightening the soldier's load, here's half a pound of Bronze Age gear we can get rid of. The training time would be much better invested in more of those "Quick Kill" exercises that teach infantrymen to come up winners in short-range shootouts.

WILLIAM BEFORT  
Newmarket, New Hampshire

### COMBAT RIFLES

I have enjoyed the efficiency of the M-1, M14, and M16A1 rifles, plus the M14E2 automatic rifle, in actual combat. And one of my relatives and his platoon knocked out a tank with M1s and Browning automatic rifles (BARs).

The M16 rifle gave me valuable service when I treated it as a rifle or an automatic rifle. I regard the M16 as a good carbine, excellent for police or security forces. But in combat it lost considerable momentum beyond ranges of about 180 meters. Moreover, the 5.56 balls would fragment on equipment and light cover such as the rims of foxholes — things a 7.62mm ball would penetrate. For example, we would have to rely upon the M60 machinegun to break out of an ambush. I hit a bunker with an M60 and its occupants came out with their hands up. I have also seen enemy soldiers exclaim upon being struck by 5.56mm balls, but shocked into silence by 7.62mm balls. The 7.62 ball is also effective against opposition aircraft, especially helicopters. In fact, I could



have hit low-flying MIG aircraft with the 7.62mm balls.

The efficiency of American combat rifles can be affirmed, therefore, by their history, but high hopes and bravado should not supersede their real limitations.

JOHN J. SKIFFINGTON  
SFC, U.S. Army Reserve  
Woonsocket, Rhode Island

### ONLY THE ROCKS . . .

I would like to offer some thoughts on ideals for the professional military leader in terms of values and attitudes — thoughts that may be useful as a simple guide.

There is an old Georgia Creek Indian saying that only the rocks live forever. I have selected three rocks for the leader — to provide him strength and to be bulwarks against the temptations and ordeals of life.

The first rock comes from military history. Most historians differ on the great leaders of the past, but my own selections are Hannibal of Carthage, Napoleon Bonaparte, Robert E. Lee, and George S. Patton. In attempting to find a common thread linking these four, I have selected an excerpt from Douglas S. Freeman's last volume on Lee:

*And if one, only one, of the myriad incidents of his stirring life had to be selected to typify his message, as a man, to the young Americans who stood in hushed awe that rainy October morning as their parents wept at the passing of the Southern Arthur, who would hesitate in selecting that incident? It occurred in Northern Virginia on his last visit there. A young mother brought her baby to him . . . and (he) looked long at it and then at her and slowly said — 'teach him he must deny himself.' That is all. There is no mystery in the coffin at Lexington . . .*

The second rock comes from fiction — from the novel *Once An Eagle*, by Anton Myrer, about two professional soldiers, Courtney Massengale and Sam Damon. The former is a political

officer, a careerist, a ticket-puncher, and a self-seeker. The latter is a real soldier of great integrity, loyalty, courage, dedication, knowledge, patriotism, and selflessness — with selflessness foremost. It is a simple comparison of extremes. Sam Damon is the ideal.

The third rock comes from sports — from the late great Paul "Bear" Bryant and his guiding principle for his players on the field and for life. Ask any former Alabama, Texas A and M, Kentucky, or Maryland athlete who played under this magnificent leader, and each will relay the same message from him, "Always show your class." There is also no secret under the hickory tree in Birmingham where Bryan is buried.

The three rocks, then, are Deny yourself, Emulate the ideal, and Always show your class. May they live forever and guide all of us as military leaders.

ROBERT LEE POWELL  
LTC, Infantry  
Fort McPherson, Georgia

### NEEDS HELP WITH BOOK

A military author and historian, Jack Britton, needs anything used or worn by a G.I. to photograph for a new book, tentatively titled *The American G.I. 1900 to 1955*. It will be an in-depth photo study of the gear, clothing, insignia, and weapons of the American G.I. during that period.

The book will also contain a section on war souvenirs such as flags, swords and daggers, headgear, medals, and insignia (including German, Japanese, Korean, and Chinese).

Anyone who would like to donate items will have his name appear in the book and will receive a free copy of it. Items should be sent directly to Jack Britton, P.O. Box 702073, Tulsa, Oklahoma 74170.

JACKIE HISOR  
Editorial Director  
Military Collectors' News Press  
Tulsa, Oklahoma

### FREE MAP OF SAIPAN

A unique historic and geographic map of Saipan has been designed for distribution by the Northern Marianas Visitor Bureau.

Interesting factual information on this famous World War II battleground is provided, along with intriguing pictorial sketches such as a profile of the Pagan Volcano, a cross section of the lagoon, the 1944 U.S. invasion route across the island as well as the Japanese defense sectors, and an underwater oceanic view of Saipan.

This colorful map is a compendium of a wide variety of information about the Northern Marianas. Among the little-known facts shown are the names of the Japanese vessels lost in the area during the war, the names and locations of invasion beaches, and interesting facts on and drawings of sea life and oceanography.

Free copies of the map are available while they last from the Marianas Visitor Bureau, P.O. Box 861, Saipan, C.M. 96950.

ECONOMIC SERVICE COUNSEL,  
INC.  
Saipan, C.M.

### RESEARCH ON NDE

I am engaged in a continuing research study concerning the "near-death experience" (NDE) as it occurs in military combat situations. I would therefore like to hear from combat veterans who have had unusual psychological experiences while wounded in combat or during a close brush with death.

The identity of anyone who responds will be kept confidential. Combat veterans or others with questions or comments are invited to write to me at P.O. Box 540, Willow Grove, Pennsylvania 19090, or to call (215) 659-3900.

ROBERT M. SULLIVAN  
CPT, USAR (Retired)

# INFANTRY NEWS



A UNIT RIFLE MARKSMANSHIP Training Guide, Field Circular 23-11, was recently distributed to all major Active Army and Reserve Component units.

The Guide is designed to improve the shooting performance of soldiers. It includes the latest marksmanship doctrine, provides guidance on the use of all new targets and aids, and presents the guidance units need to improve their marksmanship programs.

The Guide also addresses basic and advanced marksmanship subjects, making it useful for basic rifle marksmanship and advanced rifle marksmanship training programs. The Guide also includes information the marksmanship developer or trainer needs to understand effective training procedures better.

Copies of three different versions of the Guide have had limited circulation: an ARI coordinating draft, dated May 1984, and two versions of FC 23-11, dated August 1984. The three are similar, but the latest is the one that has a letter from the Commandant of the Infantry School (MG John Foss) as its first page. This latest copy, therefore, is the one that should be used for local reproduction.

A limited number of copies may be available from the Infantry School or the Army Research Institute. Requestors should use DA Form 17 and mail it to the Commandant, U.S. Army Infantry School, ATTN: ATSH-SE-TSD, Fort Benning, GA 31905, or mail a request to the Army Research Institute, P.O. Box 2086, Fort Benning, GA 31905.

Two videotapes are also available for use in illustrating basic marksmanship instructional techniques: **TEACHING RIFLE MARKSMANSHIP: PART ONE AND PART TWO**. These tapes are fully compatible with the new FC 23-11. Part One presents a

detailed overview of marksmanship fundamentals and preparatory marksmanship training. Part Two covers zeroing, shot group analysis, remedial training, and coaching during live fire marksmanship training.

The videotapes can be obtained from the Audiovisual Support Center, U.S. Army Infantry Center, ATTN: ATZB-DPT-TASC-AVSC, Fort Benning, GA 31905-5273.

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**THE FOLLOWING NEWS ITEMS** were submitted by the Director of the National Infantry Museum:

Exhibits that feature World War I and World War II uniforms have been placed at the Infantry Training Center's Reception Station by the Museum. The display also includes the uniform and equipment that belonged to the first enlisted man to parachute into Grenada. This type of display helps to give the soldier a knowledge of his military heritage and to promote esprit de corps and branch identification.

The monument to Calculator has been moved to the National Infantry Museum's grounds from the Old Infantry School building — Building 35 — where it had been since the mid-1970s. **INFANTRY** readers may recall that Calculator was a favorite pet dog of the troops at Fort Benning in the early 1920s. He received his name because of the way he walked — “putting down three (legs) and carrying one.”

Calculator was eulogized as “a veritable child of destiny, waif of the world, soldier of fortune, and post-graduate of the Infantry School.” The monument is inscribed “He made better dogs of us all.”

The larger volume of traffic at the Museum will enable more people to see the monument, and it will thus get

the attention it deserves. The monument was originally funded with 25-cent contributions that poured in from U.S. infantrymen around the world.

The National Infantry Museum Society, formed at Fort Benning a number of years ago to assist the Museum with financial and volunteer support, is open to anyone who is interested in joining. The cost is \$2.00 for a one-year membership, or \$10.00 for a lifetime membership.

Additional information about the Museum and the Society is available from the Director, National Infantry Museum, Fort Benning, GA 31905, telephone AUTOVON 835-2958, or commercial 404/545-2958.

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**THE FOLLOWING NEWS ITEMS** were submitted by the Directorate of Combat Developments:

**•Battlefield Management System.**

A DCD task force has been established to investigate C<sup>3</sup>I requirements at and below the infantry battalion level. A number of separate TRADOC and Infantry School initiatives will attempt to document total communications traffic, operational imperatives, and automation possibilities.

The task force will undertake a task and functional area analysis to consolidate and review the results of these initiatives in conjunction with a study of soldier and crew tasks and functional area requirements to determine potential resource savings and increases in operational effectiveness.

Present technology will permit the automation of many routine functions to speed personnel and logistic actions. That technology will also serve as a decision-making aid for commanders and leaders and may revolutionize the handling of target data and intelligence information.



Although referred to as the Battlefield Management System by maneuver proponents, it is essentially the application of an innovative C'I approach through automation.

•**Living TOE.** The 1982 DAIG Force Modernization Inspection reported that the pressures of force modernization had broken the Army's system for documenting organizations. To correct this, the Vice Chief of Staff of the Army initiated the Documentation Modernization (DOCMOD) program to redesign the system.

One result of the DOCMOD is the Living Table of Organization and Equipment (LTOE), which consists of using a series of intermediate TOEs (ITOE) to develop a fully modernized objective for a particular type of unit. Each ITOE must be a doctrinally sound, supportable organization and must represent a significant increase in capability. The intent of the program is to ensure that all like units are modernized through the same series of steps to facilitate management and programming. The ITOE will become an authorization document when the MACOM adds area and mission requirements and publishes the appropriate general orders.

The LTOE system will provide a basis for standardization, will support programming and budgeting, and will reduce the involvement of the MACOMs in the documentation process.

Living TOEs have been documented for the light and air assault infantry battalions. The current mechanized infantry, airborne, and ranger infantry battalions are scheduled for documentation as Living TOEs this year.

•**M16A2 Rifle.** The Directorate is presently coordinating the technology and directing the development of the M16A2 rifle. This rifle is a big improvement over the M16A1 the infantryman now carries. (See INFANTRY, July-August 1983, pages 3-4.)

The M16A2 rifle will be given initially to all combat riflemen in the forward combat areas as a replacement for their M16A1s. Although little ef-

fect on personnel strength and only minor logistic changes will result from the introduction of the new rifle, training concepts and strategies could be greatly affected.

The preliminary testing of prototype developmental hardware is scheduled to begin at Fort Benning during the second quarter of fiscal year 1986.

•**JANUS.** For years, simulations have provided combat developers with a tool for modeling the battlefield, and the ability to simulate more complex relationships on the battlefield continues to improve.

Today's simulations can be divided into three categories — manual games, such as DUNN KEMPF; computer-assisted games, such as BATTLE; and pure computer games, such as CARMONET. Each type has its strengths and weaknesses.

Today there is a new simulation called JANUS. It will help developers by providing them with better insight into the modern battlefield's complex relationships. JANUS is one of the few pure computer simulations that permit tactical interaction during the model run. This capability allows the user to make changes based on the tactical situation so that successes can be exploited and weaknesses mitigated.

To achieve this, the model uses high resolution graphics that show the terrain and the allocated forces. Opposing players deploy their forces on the basis of the scenario and the terrain before the simulation run starts. Once the simulation begins, each player is free to re-deploy his forces as the situation develops within the limits of his operational orders and doctrinal teachings. A controller monitors the simulation to make sure the players adhere to the constraints imposed by order and doctrine.

## INFANTRY HOTLINE

To get answers to infantry-related questions or to pass on information of an immediate nature, call AUTOVON 835-7693, commercial 404/545-7693.

For lengthy questions or comments, send in writing to Commandant, U.S. Army Infantry School, ATTN: ATSH-ES, Fort Benning, GA 31905.

JANUS will be used to test infantry weapons and equipment to determine their effectiveness on an integrated battlefield. The results, when balanced against the costs, will help to determine the infantry's needs and its support procurement requests.

The plan is for the Infantry School to receive JANUS within a year. This should allow the School's combat developers to better support and equip infantrymen throughout the world.

THE FOLLOWING NEWS ITEMS were submitted by the U.S. Army Infantry Board:

•**Rigging Procedures for the M16A2 Rifle.** After the suggested improvements were incorporated into the design of the M16A1 rifle, it was tested by the Marine Corps at Quantico, Virginia, and by the Army's Test and Evaluation Command at Aberdeen Proving Ground, Maryland. After the test results were analyzed, both the Army Training and Doctrine Command and the Army Materiel Command recommended that the rifle be classified Standard A and designated the M16A2.

The tests, however, did not include an airdrop of the rifle. Its physical changes — a heavier barrel, a slightly longer buttstock, redesigned front and rear sights, and a redesigned handguard — led the Infantry School to evaluate the Army's current airdrop procedures to see if they were suitable for parachutists to use when they jumped with the new rifle and its ammunition.

The Infantry Board conducted the evaluation at Fort Benning. In the test, 13 parachutists made 84 jumps while carrying combat equipment and the M16A2 rifle and its ammunition.

Two rigging methods were tested: One with the rifle exposed and the other with it in the M1950 adjustable weapons case. After the first 50 jumps, each M16A2 rifle was inspected, and a bore straightness gauge was used to make sure the barrel was not bent. If a rifle passed all of the safety tests, it was fired to see if it had retained its zero.

Questionnaires, interviews, observations, and comments by trained data collectors were used to collect data regarding the ability of the test soldiers to rig and de-rig the M16A2 rifle for airdrop according to established procedures and regarding injuries to personnel; damages to the weapons or ammunition; human factors aspects of the rigging and de-rigging procedures; retention of zero; and any safety hazards that were noted.

The test results will be used by the Infantry School to prepare and publish Army-wide procedures for rigging the M16A2 rifle.

• **M249 Squad Automatic Weapon (SAW) in the Machinegun Role.** The results of tests conducted in the late 1970s indicated that the SAW had operational characteristics similar to those of the current M60 series of machineguns. Senior military officials discussed the possibility of expanding the role of the SAW. As a result of these discussions, the Vice Chief of Staff of the Army requested that a test be conducted to determine whether the SAW could perform the machinegun role in infantry units. The Army's Training and Doctrine Command directed the Infantry Board to conduct this test.

The SAW is now authorized for use as an automatic rifle in infantry rifle squads and for a variety of roles in other Army units. It is a belt-fed 5.56mm weapon, with either a 20- or 30-round magazine-feeding capability. It is gas-operated, air-cooled, and fires from the open bolt position. The SAW has a regulator for selecting normal or maximum cyclic rates of fire, and the gunner controls the rate of fire through trigger manipulation. The bipod-equipped weapon can also be fired from a tripod or from the standing position.

In the Board's test, the SAW was compared with the standard M60 7.62mm machinegun and the M60E3 machinegun. (The latter is an improved, lightweight version of the M60 with generally the same operating principles and design characteristics.)

The performance, reliability,



From top, right side view of M249 SAW, M60E3 machinegun, and M60 machinegun.

human factors, and safety characteristics of the three weapon systems were compared in what was essentially a side-by-side test under the climatic conditions existing at Fort Benning in August and September 1984.

Forty-two infantry soldiers, most of whom were recent graduates of infantry one station unit training, completed a special training course with the three weapons before the test began. Then, wearing standard battle dress uniforms and carrying their fighting load equipment, the soldiers fired each weapon under simulated tactical conditions at point and area target arrays. The target arrays were situated at different ranges and on varied terrain over which the soldiers had to move and engage the targets.

The test scenarios, by limiting target engagement times, restricting the amount of ammunition, and varying the number of targets presented at a given time, placed the test soldiers under the type of stress they would encounter in day and night tactical operations.

In addition to firing each of the weapon systems, the test soldiers also negotiated a cross-country course several times to develop portability data and to determine their preferences. Trained data collectors recorded the test results and contributed their observations on the weapon systems.

The Infantry School will use the test results to evaluate the SAW's potential for use in the machinegun role.

**THE NEXT GENERATION** of Bradley infantry and cavalry fighting vehicles is currently being tested at Aberdeen Proving Ground, Maryland. Both the M2E1 (BIFV) and the M3E1 (BCFV) embody a number of common changes, with additional improvements being made to the BCFV.

Two major changes that are common to both vehicles involve improvements to the TOW antiarmor missile

system and the installation of a gas particulate filter unit. The improvements to the TOW system will allow either version of the E1 to use any of three variants of the TOW system: the basic TOW, the improved TOW, or the TOW-2. The gunner's instrumentation will be changed to indicate which of the three missiles is in the launcher.





## Don't Forget the Privates

MAJOR GENERAL ALBERT H. SMITH, JR., USA (RETIRED)

On Wednesday, 8 May 1985, much of the world will commemorate the 40th anniversary of VE (Victory in Europe)-Day, and will heap praises on those World War II political and military leaders who directed and led the Allied armed forces to victory in Europe.

This is as it should be, I suppose. But on this day I want the world to remember that Infantry privates also won the war in Europe. Of course the Army Air Force, the Navy and the Coast Guard contributed mightily to the final victory in Europe. And in his own way every man in uniform helped defeat the German armed forces. Infantrymen, though, did more than all the others, and young infantry privates proved to be the cutting edge of the U.S. war machine — the teeth of the shark, the claws of the tiger. In fact, if it were not for their courage, determination, initiative, and sacrifice, we might not have a VE-Day to commemorate.

Ernie Pyle, the beloved war correspondent who died on a small Pacific island in 1945, probably best described these low-ranking, rough, tough warriors when he wrote:

*The front-line soldier I knew lived for months like an animal, and was a veteran of the cruel, fierce world of death. Everything was abnormal and unstable in his life. He was filthy dirty,*

*ate if and when, slept on hard ground without cover. . . . The front-line soldier has to harden his inside as well as his outside or he would crack under the strain. . . . A front-line soldier has to fight everything all the time.*

Major General Ernest N. Harmon, a tough man in his own right who commanded armor divisions in North Africa and in northwest Europe, notes this difference between tankers and infantrymen.

*It must be a point of honor with every tanker that he never permit an infantry unit to be overrun by enemy tanks. . . . I always insisted to my tankers that in their rolling fortresses they were secure from most of the hazards of battle, and post-war casualty figures for the European Theater of Operations bore me out; infantry divisions suffered 70 percent of the casualties, armored division 10 percent.*

I have talked with many soldiers during the past few years and have found them interested in the lessons we learned during World War II. Junior enlisted men in particular seem to enjoy hearing about their counterparts of 40 years ago — what part they played in the fighting and what they accomplished. In fact, after I would tell them that I believed the privates also won the war in Europe, invariably some would approach me

and ask if I could prove it.

This challenge eventually triggered on my part a concentrated research effort. I was hopeful that this research would prove my contention that low-ranking combat infantrymen won the battles that led to ultimate victory in Europe. I believe it has.

My research plan was simple — I would start by investigating Medal of Honor statistics and then focus on Medal of Honor awards at the division level and Distinguished Service Cross awards at the regiment level.

In analyzing all of the Medal of Honor awards made to Army and Army Air Force personnel during World War II, for example, I learned that 77 of the 292 medals awarded had been won by privates. Put another way, 26 percent of all Army Medal of Honor winners came from our lowest enlisted grades.

In considering just one infantry division — the 1st — I discovered that during its eight World War II campaigns, 16 of its soldiers had been awarded the Medal of Honor. Five of the 16 (31 percent) were awarded to privates. Here are summaries of those five citations:

**Private Carlton W. Barrett.** St. Laurent-sur-Mar, France; 6 June 1944. On the morning of D-Day Private Barrett, landing in the face of extremely heavy fire, was forced to wade ashore through neck-deep

water. Disregarding the personal danger, he returned to the surf again and again to assist his floundering comrades and save them from drowning. Refusing to remain pinned down by the intense barrage of small arms and mortar fire poured at the landing points, Private Barrett, working with fierce determination, saved many lives by carrying casualties to an evacuation boat lying offshore. In addition to his assigned mission as guide, he carried dispatches the length of the fireswept beach; he assisted the wounded; he calmed the shocked; he arose as a leader in the stress of the occasion. His coolness and his dauntless, daring courage while constantly risking his life during a period of many hours had an inestimable effect on his comrades.

**Private Robert T. Henry (Posthumous).** Near Luchem, Germany; 3 December 1944. He volunteered to attempt the destruction of a nest of five enemy machineguns located in a bunker 150 yards to the flank which had stopped the advance of his platoon. Stripping off his pack, overshoes, helmet, and overcoat, he sprinted alone with his rifle and hand grenades across the open terrain toward the enemy emplacement. Before he had gone half the distance he was hit by a burst of machinegun fire. Dropping his rifle, he continued to stagger forward until he fell mortally wounded only 10 yards from the enemy emplacement. His single-handed attack forced the enemy to leave the machineguns. During this break in hostile fire the platoon moved forward and overran the position. Private Henry, by his gallantry and intrepidity and utter disregard for his own life, enabled his company to reach its objective, capturing this key defense and 70 German prisoners.

**Private First Class Francis X. McGraw (Posthumous).** Near Schevenhutte, Germany; 19 November 1944. He manned a heavy machinegun emplaced in a foxhole near Schevenhutte, Germany, on 19 November 1944, when the enemy launched a fierce counterattack. Braving an intense hour-long preparatory barrage, he maintained his stand and poured deadly accurate fire into the advancing foot troops until they faltered and came to halt. The hostile forces brought up a machinegun in an effort to dislodge him but were frustrated when he lifted his gun to an exposed but advantageous position atop a log, courageously stood up in his foxhole and knocked out the enemy weapon. A rocket blasted his gun from position, but he retrieved it and continued firing. He silenced a second machinegun and then made repeated trips over fireswept terrain to replenish his ammunition supply. Wounded painfully in this dangerous task, he disregarded his injury and hurried back to his post, where his weapon was

showered with mud when another rocket barely missed him. In the midst of the battle, with enemy troops taking advantage of his predicament to press forward, he calmly cleaned his gun, put it back into action and drove off the attackers. He continued to fire until his ammunition was expended, when, with a fierce desire to close with the enemy, he picked up a carbine, killed one enemy soldier, wounded another and engaged in a desperate fire-fight with a third until he was mortally wounded by a burst from a machine pistol. The extraordinary heroism and intrepidity displayed by Private McGraw inspired his comrades to great efforts and was a major factor in repulsing the enemy attack.

**Private First Class Gino J. Merli.** Near Sars la Bruyere, Belgium; 4-5 September 1944. He was serving as a machinegunner in the vicinity of Sars la Bruyere, Belgium, on the night of 4-5 September 1944, when his company was attacked by a superior German force. Its position was overrun and he was surrounded when our troops were driven back by overwhelming numbers and firepower. Disregarding the fury of the enemy fire concentrated on him he maintained his position, covering the withdrawal of our riflemen and breaking the force of the enemy pressure. His assistant machinegunner was killed and the position captured; the other eight members of the section were forced to surrender. Private Merli slumped down beside the dead assistant gunner and feigned death. No sooner had the enemy group withdrawn than he was up and firing in all directions. Once more his position was taken and the captors found two apparently lifeless bodies. Throughout the night Private Merli stayed at his weapon. By daybreak the enemy had suffered heavy losses, and as our troops launched an assault, asked for a truce. Our negotiating party, who accepted the German surrender, found Private Merli still at his gun. On the battlefield lay 52 enemy dead, 19 of whom were directly in front of the gun. Private Merli's gallantry and courage, and the losses and confusion that he caused the enemy, contributed materially to our victory.

**Private James N. Reese (Posthumous).** Mount Vassillio, Sicily; 5 August 1943. When the enemy launched a counterattack which threatened the position of his company, Private Reese, as the acting squad leader of a 60mm mortar squad, displaying superior leadership on his own initiative, maneuvered his squad forward to a favorable position, from which, by skillfully directing the fire of his weapon, he caused many casualties in the enemy ranks, and aided materially in repulsing the counterattack. When the enemy fire became so

severe as to make his position untenable, he ordered the other members of his squad to withdraw to a safer position, but declined to seek safety for himself. So as to bring more effective fire upon the enemy, Private Reese, without assistance, moved his mortar to a new position and attacked an enemy machinegun nest. He had only three rounds of ammunition but secured a direct hit with his last round, completely destroying the nest and killing the occupants. Ammunition being exhausted, he abandoned the mortar, seized a rifle and continued to advance, moving into an exposed position overlooking the enemy. Despite a heavy concentration of machinegun, mortar, and artillery fire, the heaviest experienced by his unit throughout the entire Sicilian campaign, he remained at this position and continued to inflict casualties upon the enemy until he was killed. His bravery, coupled with his gallant and unswerving determination to close with the enemy, regardless of consequences and obstacles which he faced, is a priceless inspiration to our armed forces.

In the matter of DSCs, and again considering just one unit — the 16th Infantry Regiment — my research turned up the fact that 87 DSCs (our second highest combat award) had been awarded between November 1942 and May 1945 to 42 officers and 45 enlisted men of the regiment. Of that total number, 17, or 20 percent, went to privates. (Twenty-three of those DSCs were awarded to members of the regiment for their extraordinary heroism at Omaha Beach on 6 June 1944. They received their awards from General Dwight Eisenhower during a special ceremony on 2 July 1944. Three of those soldiers were privates.)

## OTHER CONSIDERATIONS

Aside from the awards for valor, there is abundant evidence that Army privates can do it all. Take, for example, Private Clarence R. Huebner. A business college graduate, he left a good railroad job to enlist in the Army at 22 years of age. The year was 1910. Shortly afterward, he became a top-notch soldier and was his regiment's best rifle shot. He was commissioned in 1916, and his distinguished service in World War I earned him two DSCs and the command of a regiment in the



1st Infantry Division. During World War II he commanded the division and, later, the V Corps. He retired as a lieutenant general and was then commanding the U.S. Army in Europe. He received many accolades, but he never forgot to give credit to our infantry privates. Under his leadership, they had fought and won his battles.

Another of my favorite soldiers is Private Ted Dobol. Now a retired command sergeant major, he enlisted just before World War II when a private's pay was only \$21 a month. Serving as a squad leader and then as a platoon sergeant in the 26th Infantry Regiment during its eight European campaigns, he earned a reputation for coolness and courage under fire. His battalion commander described him as "the bravest of the brave."

Following World War II, Dobol's outstanding professionalism was recognized when he was selected as the Army's first command sergeant major. He served as the 1st Division's CSM until his retirement. But that did not end his service, for he visited the "Blue Spaders" when they fought in Vietnam and later when they were in Germany. This past April, our Secretary of the Army honored CSM Dobol by inviting him to Washington for the planting of D-Day commemorative trees. That's the road to follow: Private to command sergeant major to national hero.

Two privates I particularly appreciated in 1942-1943 when I commanded my first company in combat were a Private Plotast and a Private Martin; they were my most important and trusted assistants. Plotast (my runner and enlisted aide) unfailingly delivered my orders and instructions to the platoons. Martin (my jeep driver) was always able to find his way along unfamiliar North African roads and through German minefields, and he always managed to get us where we had to be. Both saw that the "old man" had something to eat and a place to sleep; they also guarded our company CP.

There is little question that privates distinguished themselves in the fighting on D-Day. One young infantry-

man, however, a Private First Class Milander, contributed to the Division's success without firing a shot. After his unit, Company L, 16th Infantry, had fought its way off the beaches and secured certain critical high ground on the Division's extreme left flank, Milander led a three-man reconnaissance patrol southwest to the fortified village of Cabourg. The threesome failed to return because (as we later learned) a platoon of enemy defenders had quickly surrounded them. During the night, Milander somehow talked the Germans into sur-



Infantryman peeks over hedge-row toward German positions near Brest, 24 August 1944.

rendering and took them prisoners. Next morning, American troops holding the town of Colleville cheered three weary GIs bringing in 52 of Hitler's finest. Everyone was happy that Cabourg had fallen without a fight and without another casualty.

The above examples could be multiplied many times over. As I said earlier: Army privates are special soldiers.

In his 1943-1945 Biennial Report, General George C. Marshall, the Army's World War II Chief of Staff, provided the following totals on Army decorations for gallantry during the war: 3,178 Distinguished Service

Crosses, 52,831 Silver Stars, and 189,309 Bronze Stars. With the infantry receiving 34.5 percent of all decorations for valor, and with privates earning one of every four such awards, it is evident that our young infantrymen distinguished themselves many times throughout the war.

The evidence clearly shows that American privates during World War II were rough, tough warriors who rose to the occasion. Our infantrymen did what needed to be done to accomplish the mission. Their initiative, drive, and ingenuity were unmatched by their counterparts in other military forces.

## TODAY'S ARMY

Today's infantrymen, as I have come to know them over the past year, are better prepared for combat than we were at the start of World War II. They can face any military challenge with confidence. If ever a doubt should cross their minds concerning their performance under fire, they need only look back on their proud regimental heritages for assurance. They'll see that other young soldiers during our past wars overcame their fears when the chips were down and accomplished the seemingly impossible. They'll also recognize that American privates are great soldiers — they always have been; they always will be.

Thus, on 8 May 1985, as the world commemorates the end of World War II in Europe and toasts Roosevelt, Churchill, and Stalin along with their military leaders, Eisenhower, Montgomery, and Zhukov, let's also raise our glasses to the privates. Without their contributions, there would be no victory celebration.



Major General Albert H. Smith, Jr., began his Army career in 1940 and served for more than 33 years. Much of this service was with the 1st Infantry Division, either in World War II or in Vietnam. He is now Honorary Colonel of the 16th Infantry.

# Initiative: The Spirit of the Offense

MAJOR CURTIS L. COOK

Commanders in the U.S. Army, and in other modern armies as well, rely on several principles of engagement for success in battle. Of the nine principles the U.S. Army uses — mass, surprise, objective, economy of force, maneuver, security, offensive, simplicity, and unit of command — none are more important to the infantry than the offensive and maneuver.

The defensive is also essential, of course, especially in western Europe where the Warsaw Pact forces across the border have a clear superiority in both firepower and manpower. But our leaders should have instilled into them the idea that defensive operations are largely temporary measures whose aim is to blunt an enemy attack — to trade space for time, or to channel an enemy's forces until we can marshal our own to seize the initiative at decisive points and defeat him. The truth of the matter is that rarely, if ever, has a battle been won on the defensive — it is the offensive that is decisive.

To seize that initiative and go over to the offensive, combat leaders must be able to act more quickly than the enemy. Their subordinates, too, must act independently — within the context of the overall plan — to exploit local successes boldly and take advantage of unforeseen battlefield opportunities.

Imaginative commanders have accomplished this in every age and practically every war. As recently as 1973 in the Mideast, the Israeli Defense Force (IDF) superbly demonstrated that an offensive spirit and sound tactics could overcome great odds. And in the U.S., improvisation, initiative,

and aggressiveness have historically distinguished our soldiers from those of other countries.

Of the many remarkable commanders to use this concept in this country, none (save perhaps General Robert E. Lee in Virginia during the Civil War) exemplified it more than another Confederate general, Nathan Bedford Forrest, in Tennessee during the same war.

## SUCCESSFUL

General Forrest had been so successful in his raids and attacks that in 1864 Union General William T. Sherman authorized the formation of a task force whose sole mission was to find and destroy him. This force, brought together in Memphis under the command of Major General Samuel D. Sturgis, numbered nearly 8,500 men. It had 22 artillery pieces of all sizes, 250 wagons loaded with 20 days' rations, and the latest in individual firepower — repeating rifles.

In spite of Forrest's brilliant record of success against numerically superior forces, Sturgis discounted him as a "plunderer who would not fight anything near an equal force." Sturgis set out from Memphis in early June on his "seek and destroy" sweep, maintaining what he called a compact striking force.

In addition to his advantage in numbers and in firepower, Sturgis had one other advantage — his 5,000-man infantry force, commanded by General William L. McMillen, included one brigade of highly motivated black soldiers who had sworn vengeance on

Forrest and his men for the "Fort Pillow Massacre." (This was an earlier engagement with Forrest in which many of the black defenders had been killed while trying to surrender.)

Sturgis's 3,300-man cavalry force under General Ben Grierson had been experimentally mounted on mules as that animal was believed to be possessed of more deliberate and "intellectual" traits than the "common horse."

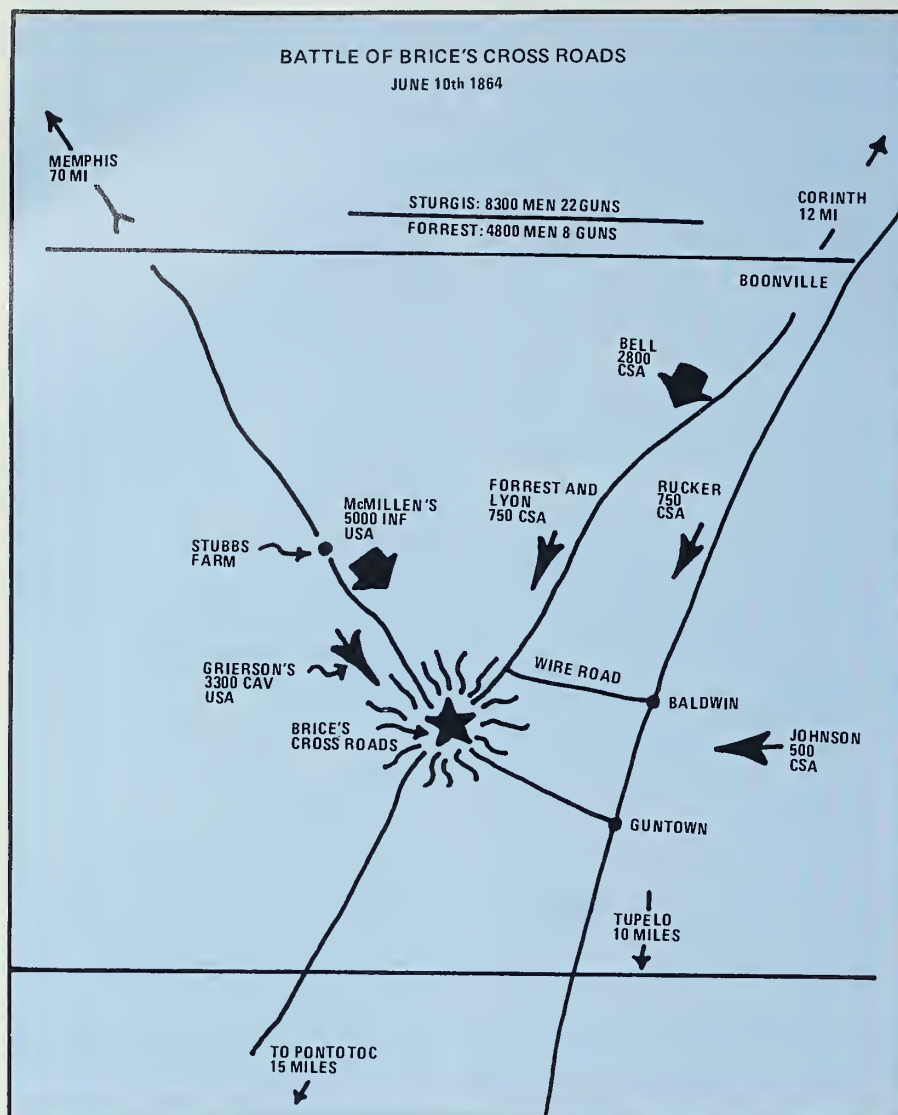
Unlike Forrest — who seemed to consider intuitively his mission, the enemy, the terrain, and the weather, as well as the available troops and time (factors we now call METT-T) — Sturgis apparently made no provision for these factors.

By 9 July, he was some 70 miles from Memphis. The skies had cleared after several days of heavy rain, and the Mississippi sun beat down unmercifully on his soldiers as they marched along the muddy roads. He camped that night at a place called Stubb's Farm, about 10 miles northwest of Brice's Crossroad (see map).

Forrest had used his cavalry units and informers as well to keep track of Sturgis's movements. Thus, when Sturgis went into camp that evening, Forrest had already reconnoitered the area and decided to make a stand along the timber-laced low plateau of that same crossroads. He relied heavily on the superior mobility of his forces, which he planned to use as fire and maneuver elements. (He didn't call them that, but he almost always planned to use a reserve so as to be able, in his words, to "hit the enemy on the ee-end.")

Realizing what the weather and ter-





rain conditions had been for several days along the enemy's avenue of approach, Forrest planned to surprise Sturgis's cavalry, which he guessed would be leading the main infantry force by about five miles. If this cavalry could be locked into a defensive position for a reasonable time by a solid base of fire, Forrest reasoned, then it could be out-maneuvered and defeated. He knew that word was certain to be rushed back telling the Union infantry to come on the double and that those troops — made up of men from Illinois, Minnesota, and Indiana — would hardly be prepared for the Mississippi delta's heat and humidity. They would be rushed forward pell-mell and strung out along the muddy Memphis-to-Guntown Road, and Forrest planned to hand

them a resounding thrashing.

Forrest's estimate of his opponent proved accurate. General Sturgis did not realize that his adversary was anywhere near and sent Grierson's cavalry out a good three hours before the infantry broke camp. (He wanted to allow his infantrymen time to dry their rain-soaked clothes.)

Meanwhile, Forrest had posted one of his brigade commanders, a Colonel Lyon, and his 750-man brigade in the thick woods directly astride the enemy's approach route with orders to attack their erstwhile pursuers.

In the confusion of the battle, Lyon's troops apparently charged three separate times and each time were repulsed by the Union cavalry. These "charges" were actually only feints, however, used to disguise the

fact that not all of Forrest's troops had arrived.

Nevertheless, Grierson, believing himself to be under attack by a superior force, fought back desperately if unwisely, rapidly expending ammunition with his repeating rifles. During the first part of the fighting, unfortunately, his "intellectual" mules ran away, which deprived him of mobility and lowered the morale of those cavalymen who were not trained to stand and fight infantry style.

Grierson, as Forrest had predicted, sent back word to bring up the infantry with all haste as he was being pressed to the extreme and would soon run out of ammunition. Sturgis complied and drove his infantry as fast as possible, losing many men to heat exhaustion along the way. He stopped only long enough to order his most inspired unit, the black brigade under Colonel Bouton, to stay back and guard the supply wagons. It apparently did not occur to him that these black soldiers, largely freed men and ex-slaves from Mississippi, Louisiana, Arkansas, and Texas, may well have been more accustomed to the heat and humidity than the white troops from farther north.

In any case, by this time Forrest had attacked with two newly arrived brigades. Their attack completely defeated the Union cavalry. At about this time, McMullen's infantry began to arrive on the field. Winded but game, the soldiers were sent headlong into the conflict with neither a pause nor a plan.

Forrest maintained his forces astride the road as they had been deployed originally, but then he improvised with his eight-gun artillery battery. He had these guns double-shotted with canister and ordered the artillery commander to join the upcoming charge with these guns abreast of the infantry, keeping pace with them as they advanced. A maneuvering brigade attacked from the flank and rear, combined with pressure on the front, and shattered Sturgis's force, sending it streaming back up the road toward Memphis and safety.

Back in the rear with his black brigade, Colonel Bouton saw that the main Union force had been beaten and was being pursued by the Confederates. He found General Sturgis and pleaded with him to commit the blacks so that a defensive line could be established and the Union force reorganized. Instead of granting any such permission, Sturgis ordered Bouton to join in the retreat. He was by this time so agitated and panicked by the turn of events that in stifling Bouton's argument he said, "If Mr. Forrest will let me alone, I will let him alone . . . Save yourselves."

General Forrest had determined

when, where, and under what conditions he would fight. Having therefore gained the initiative, he did not surrender this "independence of action" until his enemy had been decisively beaten and put to headlong flight.

The concept of initiative, according to Field Manual 100-5, "implies an offensive spirit in the conduct of all operations; it means that the underlying purpose of an encounter with the enemy is to gain and hold an independence of action with the understanding that this requires risk taking and an atmosphere that supports it."

Forrest accepted the risks; Sturgis did not. The result, as usual, favored

the risk taker. As it was on that battlefield of the past, so it will be on the battlefield of the future — the leader who seizes and holds the initiative will win the battle.



Major Curtis L. Cook is assigned to the State Area Command, Arkansas National Guard. He previously served on active duty with the 4th Infantry Division. A 1970 ROTC graduate of the University of Arkansas at Pine Bluff, he also holds a master's degree from the University of Northern Colorado.

## Improved EIB: The Standard of Excellence

HARRY IKNER

For an infantryman, the expert infantryman's badge (EIB) traditionally has been a mark of excellence. Some infantrymen have said, however, that the badge's image has become tarnished because the EIB test is no longer tough enough.

As EIB proponent, the Infantry School recently studied the present test standards and concluded that, while the test is still a tough one to pass, some additional toughening was in order. The result is a new, improved EIB program and a test that will clearly distinguish the highest caliber infantrymen from the typical high-quality performers. Both the program and the test are outlined in detail in a revised Army Regulation 672-12, Expert Infantryman Badge, and in DA Pamphlet 672-12, Decorations, Awards and Honors, Expert Infantryman Badge. These publications will be

distributed to the field in April 1985, with an effective date of 1 August 1985. (Both publications will be printed in the new "update" format.) Units can use the four months between the publication and implementation dates to review the new test requirements and prepare for the test.

### HIGHER STANDARDS

The current test has 16 subject areas with 27 tasks; the new test will have 20 subject areas with 41 tasks. The tasks will still come from the Soldier's Manual of Common Tasks (Field Manual 21-2) and from the Soldier's Manuals (STP 7-11B, Skill Levels 1 and 2), but the standards and performance measures will be higher than those in the manuals. EIB candidates will now be retested by tasks rather

than by subject areas. A candidate can fail no more than two tasks and can be retested only once on each task he failed. Thus, a candidate who fails more than two tasks will be disqualified and will have to take the entire test during his unit's next annual test period.

In addition to the changes in the number of events and in the standards (shown in the accompanying matrix), two items are worthy of note: There is now an SQT for officers, and a standardization committee has been created. Officers must take the 11B Skill Level 4 SQT and score 80 percent or higher on it. And the function of the EIB Standardization Committee, in the Infantry School's Directorate of Training and Doctrine, will be to approve or disapprove requested modifications to the training program and test; to monitor EIB training pro-



**NEW EIB QUALIFICATION REQUIREMENTS**

<u>Prerequisites</u>	<u>Current Requirements</u>	<u>New Requirements</u>	<u>Remarks</u>
<b>M16A1</b>	Expert — Can retest — Cdr certifies.	Expert — No retest — Cdr certifies.	Use last qualification score.
<b>Skill Qualification Test (SQT)</b>	None.	Enlisted soldier must have scored 80% on his last SQT. Officer must take SQT 11B4 and score 80% or higher.	No retest — Officers will be administered the test at local TSO.
<b><u>Tasks</u></b>			
<b>APRT</b>	Prerequisite — 180 minimum — Cdr certifies.	240 minimum — At least 60 per event.	Tested by EIB Committee.
<b>Land Navigation</b>	Prerequisite — Cdr certifies.	Daylight course lengthened to 4,000 meters with 4 direction changes, 5 legs; 3-hour time limit. Night course lengthened to 2,000 meters with 2 direction changes, 3 legs; 2-hour time limit.	Tested by EIB Committee. Increased difficulty by including terrain association and having candidate identify the terrain feature at each point.
<b>12-mile Foot March and Weapon Proficiency Test</b>	Prerequisite — Cdr certifies.	Task must be started within one minute after crossing finish line of 12-mile foot march. Candidate will disassemble, reassemble, and perform malfunction check on M16A1 rifle within four minutes.	Tested by EIB Committee.
<b>First Aid</b>	Apply pressure dressings.	Perform CPR (one-man method), apply pressure dressing, apply a tourniquet, and treat for shock.	Increased difficulty and added 3 tasks.
<b>NBC</b>	Decontaminate skin.	Mask with hood within 15 seconds, name 7 of 8 symptoms of nerve agent, administer nerve agent antidote (self-aid), decontaminate skin, put on and wear protective clothing (MOPP-4).	Increased tasks and difficulty.
<b>Survival Techniques</b>	Camouflage yourself and equipment — 15 minutes.	Reduced time to 10 minutes.	Decreased time.
<b>Basic Individual Techniques</b>	Use visual signals — Demonstrate 6 signals. Call for and adjust fire.	Move under direct fire, estimate range, use visual signals; demonstrate 15 signals; locate a target by shift from known point; call for and adjust fire; construct individual fighting position.	Increased tasks and difficulty within tasks.
<b>Communications</b>	Operate radio set AN/PRC-77 or AN/PRC-25.	Operate as a station in a radio net using CEOI and KTC 600-D.	Must use proper RTO procedures, authenticate to enter and leave net, encode and decode 5 words using KTC 600-D.
<b>Map Reading</b>	Intersection, grid coordinates, and determine azimuths.	Using 8-digit coordinates, plot and identify 5 terrain features. Determine two enemy locations using 8-digit coordinates.	Increased difficulty.
<b>M16A1 Rifle</b>	Disassemble and assemble, load, reduce a stoppage, and clear; mount and dismount AN/PVS-4.	Load, reduce a stoppage, and clear.	Decreased time from 40 to 30 seconds.
<b>Hand Grenades</b>	Engage troops in open.	Engage troops in open, troops dug-in with overhead cover, and troops dug-in without overhead cover.	Increased difficulty. Must engage all three targets using only 5 grenades.
<b>Mines</b>	Install and fire M18A1, and install M16 antipersonnel mine.	Install and recover mechanical ambush. Install and remove M21 antitank mine.	New tasks.

Security and Intelligence	None.	Process known or suspected enemy personnel, documents, equipment. Collect and report information (SALUTE).	New tasks.
Perform Operator Maintenance on an M203 Grenade Launcher	None.	Dissassemble, assemble, and identify four 40-mm rounds.	New tasks.
Prepare an M72A2 LAW for firing and apply immediate action to correct malfunction. M60 Machinegun	Prepare LAW for firing and restore to carrying configuration. Perform operator maintenance, load, reduce a stoppage, and clear.	Prepare LAW for firing and apply immediate action for combat misfire. Added — Prepare a range card.	30 seconds to prepare LAW for firing; 20 seconds to perform immediate action. Reduced time from 8 to 6 minutes on operator maintenance.
Cal .50 Machinegun	Load, reduce a stoppage, and clear. Set head space and timing.	No change.	Reduced time from 10 to 8 minutes.
Dragon	None.	Prepare a Dragon for firing within 30 seconds. Prepare a Dragon range card.	This task will be used only by units not having Cal .50 MG as part of TOE or MTOE.

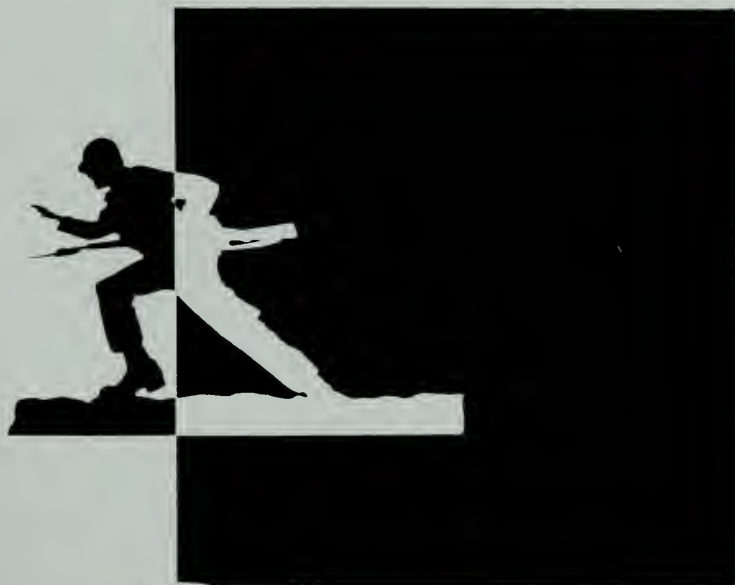
grams and tests; and to visit 50 percent of the test units during their test periods to observe and to facilitate feedback.

Commanders must notify the Infantry School six months in advance of their EIB test periods and must submit an after-action report to the School within 15 days after their units

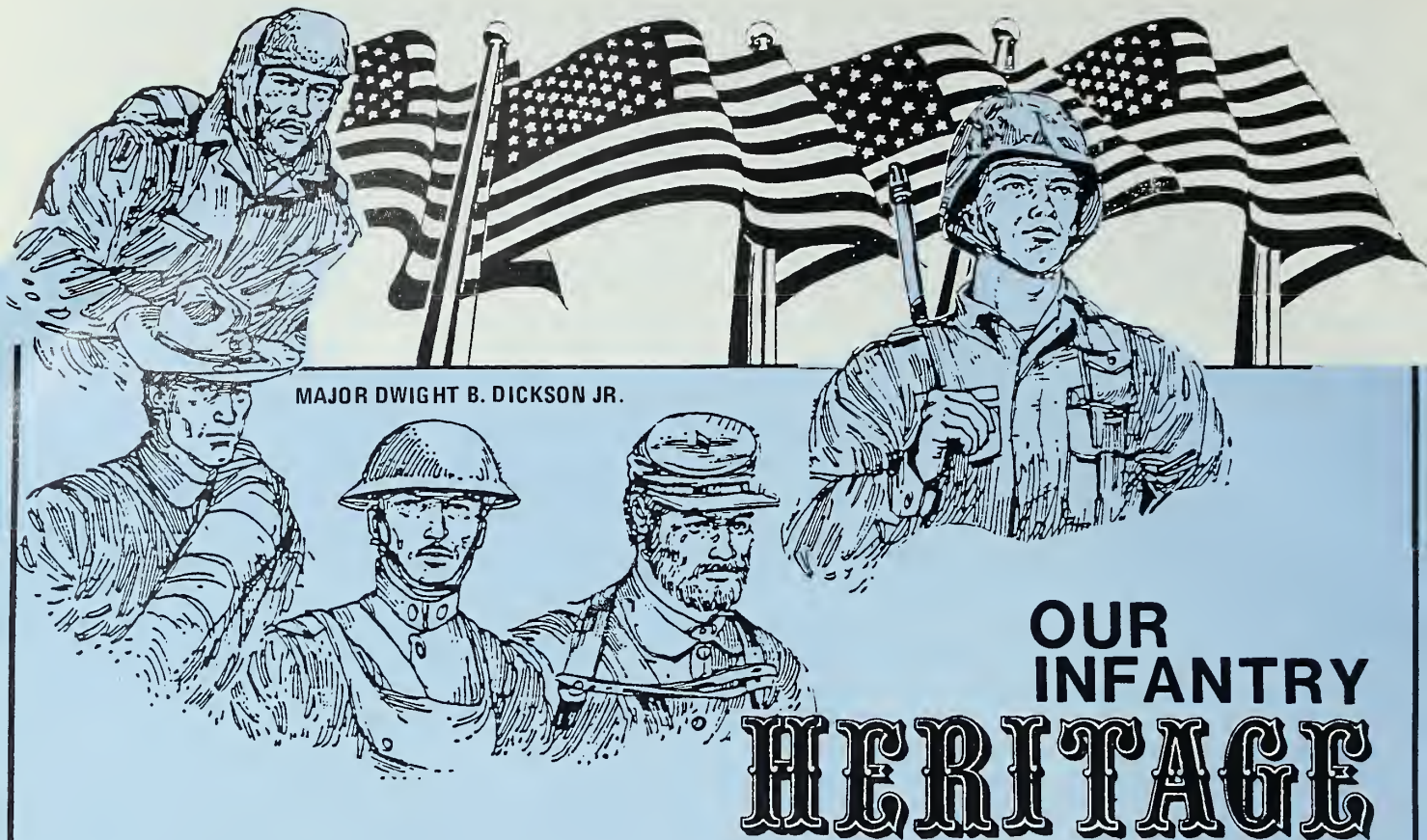
have completed the test. The report must include the number of soldiers tested by task, the number of soldiers who passed each task, and the number of soldiers awarded the EIB. The School will use this data to study possible future changes to the EIB program and test and to determine which tasks, if any, need to be revised.

Inquiries should be sent to the Director, DOTD, USAIS, ATTN: ATSH-I-V-T-M, Fort Benning, GA 31905-5593.

Harry Ikner, a retired sergeant major, is assigned to the Directorate of Training and Doctrine at the Infantry School.







MAJOR DWIGHT B. DICKSON JR.

## OUR INFANTRY HERITAGE

The regimental system that is now being implemented in the U.S. Army offers great promise for improvements in unit cohesion and esprit as well as in the overall quality of life for individual soldiers. The rich historical legacy of the Army is being used in this system to provide a home for career soldiers who in the past have viewed Army life as an endless succession of address changes, new patches, and different sets of unit insignia. Unfortunately, as with the British Army's many changes in its regimental system over the years, the advent of the U.S. system is proving to be painful, even for many of its most ardent supporters.

During the planning process, it became evident that restructuring the Army to form a workable regimental system would mean leaving out many old and famous regiments. For the infantry, 26 colors were determined to be the most that could be accommodated within a 16-division active force structure. This meant that the other 32 infantry regiments of the 1957 Combat Arms Regimental System (CARS) would have to be either inactivated or transferred to the training base. (Even with the recently planned addition of two infantry divisions, only about 30 infantry regiments can be represented in the system.)

The present plan also calls for pairing battalions stationed in the continental United States (CONUS) with battalions stationed overseas under one regimental flag so that each regiment will contain from three to six active battalions.

Although the history and tradition of some of these

regiments will be retained in training battalions, few active duty soldiers will ever serve in any of these units. And the new recruits who pass through them will quickly and quite properly go on to transfer their loyalty and affection to their permanent regiments. Similarly, the training cadre will serve in these units only temporarily on "extra-regimental" assignments, then return to their home regiments.

Before long, all the veterans of such regiments as the 14th Infantry and the 28th Infantry will be gone. Those of the 508th Infantry who fought in the Dominican Republic, Vietnam, and Grenada will never be joined by younger veterans of the unit. History books and a set of colors propped up in the headquarters of a training battalion will be the only reminder of the 10th Infantry, the 13th Infantry, and many others. Even the 3d Infantry (The Old Guard), the Army's oldest regular infantry regiment, will suffer an undeserved fate: Although listed as a regiment, it will be one in name only, since it will have just one active battalion and no permanently affiliated members. Thus, as in any other regimental system, only those regiments that maintain an active roll of affiliate members will stay alive. The others will gradually be forgotten.

At the same time, many divisions will be losing regiments that have served with them since World War I, because our planners considered those regiments too junior to be kept under the new system. To me, this disregard for the heritage of many fine infantry units is not

in keeping with one of the primary goals of the regimental system.

One key element of the British regimental system (which the U.S. Army studied before adopting its own system) is its efforts to maintain within its active regiments a strong link with their predecessors. In fact, even though that army has undergone many reductions in active regiments, it has seldom chosen to disband a unit. Instead, it has usually consolidated two or more regiments into a new formation that shared the history, honors, and traditions of its famous predecessors. The great shortcoming of the U.S. system is its failure to do something similar.

**Light Infantry Mergers**

Sr Regt	Jr Regt	CONUS	# Bns	OCONUS	# Bns
1	47	9 ID	2	25 ID	2
2	35	9 ID	2	25 ID	2
3	63*	MDW/7 ID	1/1	6 ID	1
9	31	7 ID	2	2 ID	1
11	61	101 AA	2	8 BERLIN/56 FA	1/1
14	53*	7 ID	2	6 ID/25 ID	1/1
17	55*	7 ID	2	2 ID	1
19	87	10 ID	2	6 ID/25 ID	1/1
20	51	10 ID	2	6 ID	1
21	32	7 ID	2	25 ID	2
22	25*	10 ID	2	6 ID	1
23	39	9 ID	2	2 ID	1
26	187	101 AA	2	193 BDE	2
27	327	101 AA	2	6 ID/25 ID	1/1
29	24*	INF SCH	2**		
30	38	101 AA	2	BERLIN	2

\*Non-CARS Regiment.

\*\*The 29th Infantry would provide infantry training battalions at Fort Benning.

**TABLE 1**

What follows is a detailed proposal for consolidating U.S. infantry regiments — a plan that could be carried out with only a minor modification to the plan now being implemented. Under this proposed plan, there would still be 30 regiments, but instead of transferring the excess infantry colors to the training base, all of the CARS infantry regiments plus certain selected non-CARS regular regiments would be reorganized and consolidated into 30 new regiments.

The 30 regiments would consist of 28 infantry regiments, one parachute regiment, and one Ranger regiment. The 28 infantry regiments would be formed by mergers of two regimental colors. Thus, the first 28 CARS regiments (1st through 23d and 26th through 30th) would provide the senior component. Their junior partners would come from the younger regular regiments organized during World Wars I and II, except for those with an airborne background. This merger (as shown in Tables 1 and 2) would preserve the number and recognize the seniority of the infantry regiments that made up the small Regular Army of the 19th and early 20th centuries.

**Mechanized Infantry Mergers**

Sr Regt	Jr Regt	CONUS	# Bns	OCONUS	# Bns
4	34	24 MX	2	3 MX	2
5	36	FA SCH	1	3 AD	2
6	46	5 MX	2	1 AD	2
7	58	197 BDE	2	3 AD	2
8	48	4 MX	2	8 MX	2
10	52	5MX/NTC	1/1	1 AD	2
12	62*	4 MX	2	8 MX	2
13	54	194 BDE	1	8 MX/3 MX	1/1
15	50	24 MX	1	3 MX	2
16	56*	1 MX	2	1 MX(F)	2
18	60	INF SCH/9 ID	1/1	193/2ID	1/1
28	41	2 AD	2	2 AD(F)	2
5 CAV	12 CAV	1 CD	2	2 ID	1

\*Non-CARS Regiment.

**TABLE 2**

The history and traditions of the junior regiments would be incorporated into the new regiments by consolidation.

In addition to the CARS regiments, seven regular regiments that were not organized under CARS would be reconstituted and merged with a senior partner. Therefore, practically all of the regular infantry regiments that have earned campaign credits would be represented.

This system is simple, and it avoids many of the emotional and subjective judgments that must be made with schemes that use any criterion other than seniority. Moreover, since all of the regiments would be represented,

**The Parachute Regiment**

Old Regt	Associated Bn	Unit
501	1	82 A8
502	2	82 AB
503	3	82 AB
504	4	82 AB
505	5	82 AB
506	6	82 AB
507	7	ABN TNG 8N
508	8	82 A8
509	9	SETAF
511	11	82 AB
513*	13	INACTIVE
514*	14	INACTIVE
515*	15	INACTIVE
517*	17	INACTIVE
325	25	82 AB
551*	51	INACTIVE
188	88	SEP COMPANIES
194*	94	INACTIVE

\*Non-CARS Regiments.

NOTE: 187th and 327th Infantry are consolidated with light infantry regiments to provide historical connection for home-based regiments of the 101st Abn Div.

**TABLE 3**





veterans of the many regiments not included in the current plan would have a regimental home.

The exceptions to the system of paired regiments would be the airborne and Ranger units. None of these special units could compete with the rest of the infantry in seniority, but their special character and heritage is certainly worth preserving. The solution is to organize a parachute regiment in addition to the present Ranger regiment.

The Parachute Regiment (its formal name) would be large, with 11 active battalions. Each of the active battalions would represent one of the former airborne regiments. The 1st Battalion of the Parachute Regiment, for example, would represent the 501st Infantry, the 2d Battalion, the 502d Infantry, and so forth as shown in Table 3. All of the old airborne regiments except the 187th Infantry and the 327th Infantry would be consolidated into the Parachute Regiment. The regimental headquarters would provide a single home for all airborne infantry while the active battalions would keep alive the identity and the traditions of the individual parent regiments.

Since all battalions of the parachute regiment should be airborne units, the 101st Airborne Division (Air Assault) would not have these battalions assigned to it as long as it remained an air assault division with no units on jump status. Of course, the 501st, 503d, and 506th Infantry would all return to their historic employment as airborne forces by serving as active battalions of the Parachute Regiment.

The 187th Infantry and the 327th Infantry would be consolidated with the 26th and 27th Infantry Regiments, respectively, and homebased with the 101st. This would give the 101st two regiments with a history of service with the division, and the combination of the 26th (Blue Spaders) with the 187th (Rakkassans) and the 27th (Wolfhounds) with the 327th would form partnerships rich in tradition and history.

This proposed merger of regiments would offer a number of advantages over the present plan. Because of the requirement in the present plan to pair overseas and state-side battalions, many divisions will no longer contain battalions of the regiments traditionally assigned to them. This is particularly true for divisions linked with the younger regiments that have not been included in the present regimental system.

It is hard to imagine the 9th Infantry Division, for example, without the 39th Infantry, 47th Infantry, and 60th Infantry; nevertheless, since none of these regiments were among the colors selected to be kept on the active rolls, they will all disappear from the "Old Reliables." But a merger of these regiments with the 23d Infantry, the 1st Infantry, and the 18th Infantry, which are to be assigned to the 9th Division, would give the new regiments a solid link with the Division's World War II and Vietnam heritage. This would also enable the veterans of the 9th Division to maintain a regimental home in the division that was tied to their old unit.

Most of my proposed mergers, in fact, are based on divisional affiliations and would return many fine regiments to their home divisions as a part of a new consolidated regiment. Other mergers would link regiments that share a common heritage. The 30th and 38th Infantry, for instance, served in the same brigade during World War I where they both earned the title "Rock of the Marne." The merger of these two regiments would perpetuate that tradition as the "Marne Regiment."

The merger of the 17th Infantry and the 55th Infantry is another example of a consolidation that would recognize historical ties. The 55th Infantry was formed with personnel from the 17th Infantry and assigned to the 7th Division during World War I. This merger would therefore renew the ties of these two units and bring back to the 7th Division one of its original regiments. This merger is also one of nine that would be accomplished by recon-

stituting a non-CARS regiment.

A few of my proposed consolidations neither strengthen divisional associations nor recall historical ties. They simply pair the remaining senior regiments with a junior partner. Even so, these new regiments could use the achievements and traditions of their predecessors to build a new and stronger regiment. By consolidation, the veterans of all the regular regiments would gain a regimental home and could help to ensure that the spirit of their old regiments was fully represented in the new.

Each of the new regiments would be more than just a unit of assignment. It would be a lifelong home for soldiers and would provide them with a sense of belonging and team spirit. The consolidation plan would help in this effort to make the regiment an institution that would strengthen the cohesiveness of the Army.

Each new regiment would inherit the lineage and honors of its predecessors, but it would use the number of its senior component and would display that regiment's coat of arms on its organizational color. The coat of arms of the junior partner would be informally displayed by the unit. Additionally, each new regiment could be granted devices to be displayed on the corners of the organizational color. These augmenting devices could come primarily from charges or crests on the coat of arms of the junior regiment. The use of the devices would also provide an opportunity to commemorate the significant actions of both regiments during World War II, Korea, and Vietnam.

The new regiment should also be entitled to adopt a regimental badge. One design could be authorized for each new regiment for wear on garrison caps and, in a subdued version, on BDU caps in garrison. These badges could also be worn on belt buckles. The design might be new, incorporating elements of the heritage of both regiments, or it might be a modified version of the insignia currently in use by one of the regiments.

Distinctive Unit Insignia (DUI), known as "unit crests," would continue to be worn, but each regiment would wear the DUI of only one of the old regiments, normally that of the senior partner. For example, the 2d Infantry (2d and 35th Regiments) would continue to wear the DUI of the 2d Infantry, but it could adopt as a regimental badge a device that incorporated design elements from both regiments. Likewise, the 10th Infantry (10th and 52d) could wear the badge of the 10th Infantry and the DUI of the 52d. The Parachute Regiment could adopt a regimental badge to be worn by all its members. The battalions could continue to use the beret flash, wing background, and DUI of the old regiment that they represented.

The adoption of a regimental badge would provide a way of identifying soldiers with their affiliated regiment without cluttering the uniform and without devising a complex system for wearing DUIs on different uniforms. The soldiers affiliated with a regiment would wear the DUI of their current unit. (Soldiers who were not affiliated with a regiment would wear a corps or branch

badge that would be designed for each of the current branches of the Army.)

For the 39 years since the end of World War II, the Regular Army has consisted of between 14 and 20 divisions, and this general size is unlikely to change any time soon. The integration of the present regimental system into this force structure will never allow room for more than about 30 infantry regiments. Even a large-scale expansion of the Army during a national emergency would be met by a call-up of Reserve Component units. Although this call-up might be followed by some expansion of the Regular Army, this expansion would undoubtedly be accomplished by the activation of additional battalions of the active regiments. Therefore, any regiments that are not included in the regimental system would be forever relegated to the inactive list, or, at best, to service as training units.

The consolidation option I have outlined here is the only practical way the history and tradition of all the regular regiments could be preserved and continued in the combat elements of the Regular Army. Moreover, such a consolidation, in many cases, would improve the regimental system by strengthening the ties between the regiments and the divisions to which they would be assigned. And for soldiers with strong attachments to their regiments, this consolidation would permit them to maintain a tie with their old unit by requesting affiliation with the new regiment. For instance, the affiliation of veterans of the 31st with the new 9th Infantry would help to ensure that the traditions and the legacy of "America's Foreign Legion" were not lost.

The proposed consolidation of light, mechanized, and airborne infantry (as laid out in the tables), could be accomplished with little modification to the current plan, and the 75th Infantry would continue its role as the Ranger Regiment. The plan is based on the most current information available and includes the new 6th and 10th Infantry Divisions. Future changes to force structure might change the plan slightly, but the flexibility of the system could accommodate these changes.

Although the changes to the current system would be few, there will doubtless be resistance to reopening this issue. But our regiments are more than just numbers on TOE documents. They are corporate symbols of the Army's past achievements and a source of inspiration for present and future soldiers. Moreover, we should not restrict the consolidation scheme to infantry regiments.

Our regiments deserve better treatment than they are getting in the current regimental plan, and the consolidation proposed here would provide a workable and honorable alternative.



Major Dwight B. Dickson is assigned to the 8th Infantry Division in Germany. Among other assignments, he previously served on the faculty of the U.S. Military Academy, and as a platoon leader and company commander in Vietnam.



# U.S. the infantry

CAPTAIN PETER A. ESCHBACH

We in the military profession generally accept the idea that the study of our past will aid us in understanding the present and in anticipating the future.

In the recent past, there has been a great deal of literature on the history of the United States Army, most of which is broad in its scope. Wars, battles, strategy, and tactics are a few examples of the sweeping subjects found on bookshelves today. And much has been written about the nation's great military commanders. But those leaders owe their victories and, in some cases, their lives to one rugged group that is generally forgotten: The U.S. Infantryman. Unfortunately, little material has been dedicated to that most important participant in U.S. military history.

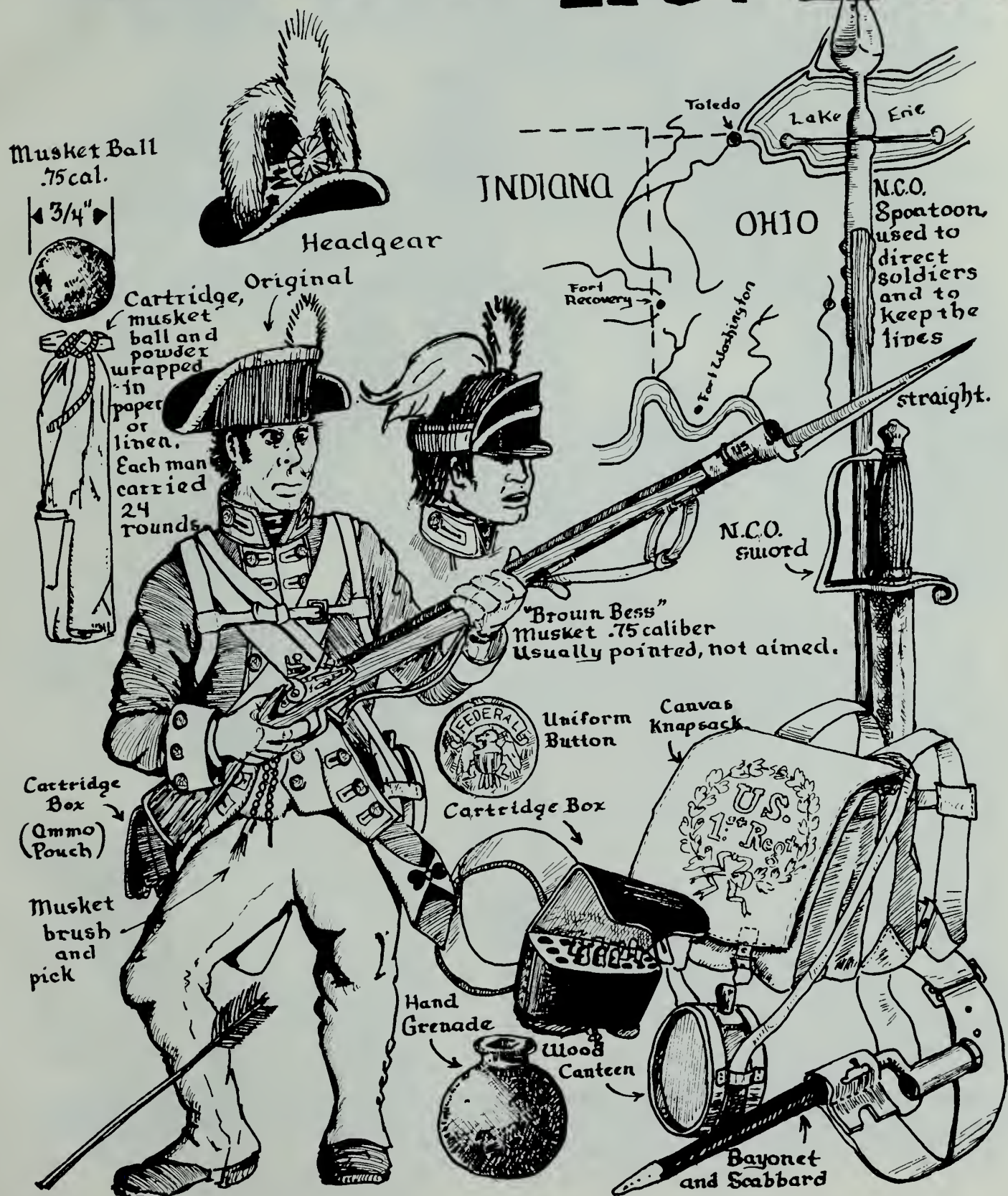
It is the common foot soldier who has, in the truest sense, closed with and destroyed the enemies of his country. Without the infantryman's perseverance, his ingenuity, and his love of nation, unit, and buddies, U.S. history would have been written in a drastically different manner (and possibly even in a different language).

The next 11 pages depict the evolution of the U.S. Infantryman, his uniform, and the "tools of his trade." Two hundred years of technological progress has had a tremendous effect on the Army's development, but the infantryman and his basic mission have changed little since he first answered the call to the colors of an infant United States.

---

Captain Peter A. Eschbach is an Infantry officer assigned to the Public Affairs Office of the XVIII Airborne Corps at Fort Bragg. A 1978 graduate of the U.S. Military Academy, he has served in several infantry assignments.

# U.S. INFANTRY 1784-1794





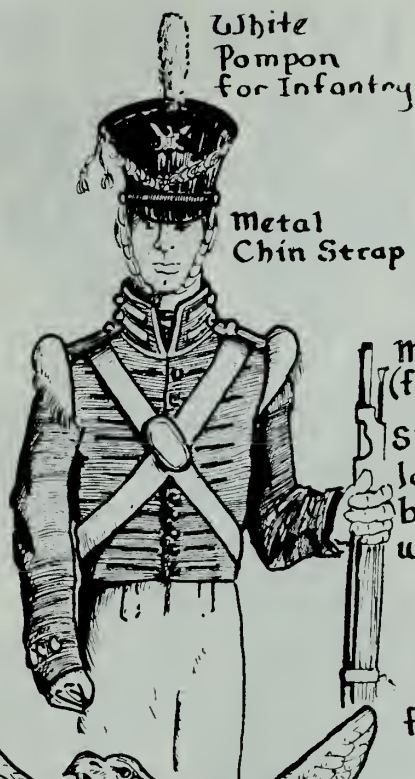
# U.S. INFANTRY 1808-1814

Enlistment: 5 years  
Private's Base Pay:  
1808: \$5.00/Month  
1812: \$10.00/Month





# U.S. INFANTRY 1815-1850



White  
Pompon  
for Infantry

Metal  
Chin Strap

M1808 Musket  
(flintlock)

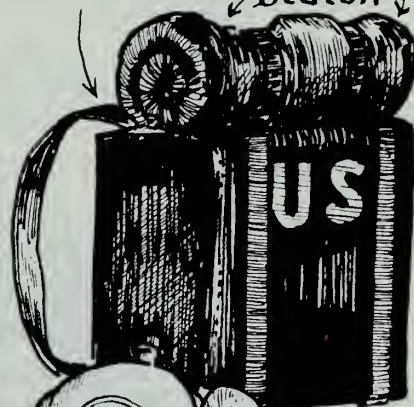
Sleeves were made  
long and open  
because  
uniforms shrank.

Leather  
folding  
forage cap



Knapsack made of  
wood and leather

Bedroll



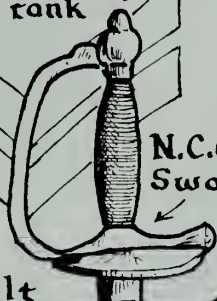
Kindling wood  
for cooking fire

Hat  
Brass



first use of stripes  
for rank

N.C.O.  
Sword



Waistbelt  
buckle

Haversack  
(food bag)

Tin Canteen

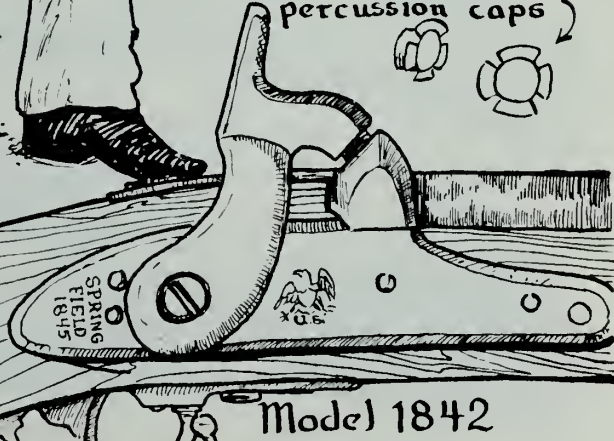
Percussion Caps  
replaced flintlock style  
muskets.

Military "Top Hat" brass  
percussion caps



Breastplate

.69 caliber  
musketball



Model 1842



Hardee hat



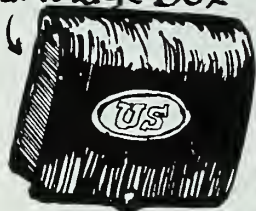
Black felt campaign hat



Tarred canvas knapsack (rucksack) (carried 5 days rations) and sleeping roll



Cartridge Box



1 1/2 quart grey wool covered tin canteen & cup



hard tack & coffee



Minie Ball for the .57cal. Model 1861



Model 1861 Rifle Musket weight: about 10 lbs; rate of fire 3-5 rounds per minute max range: 500 m ±

Insignia of the

Infantry

Bugle with regimental number.



Handgrenade, weight: 5 lbs.

# U.S. INFANTRY 1854-1865

1<sup>st</sup> Corps



2<sup>nd</sup> Corps



5<sup>th</sup> Corps



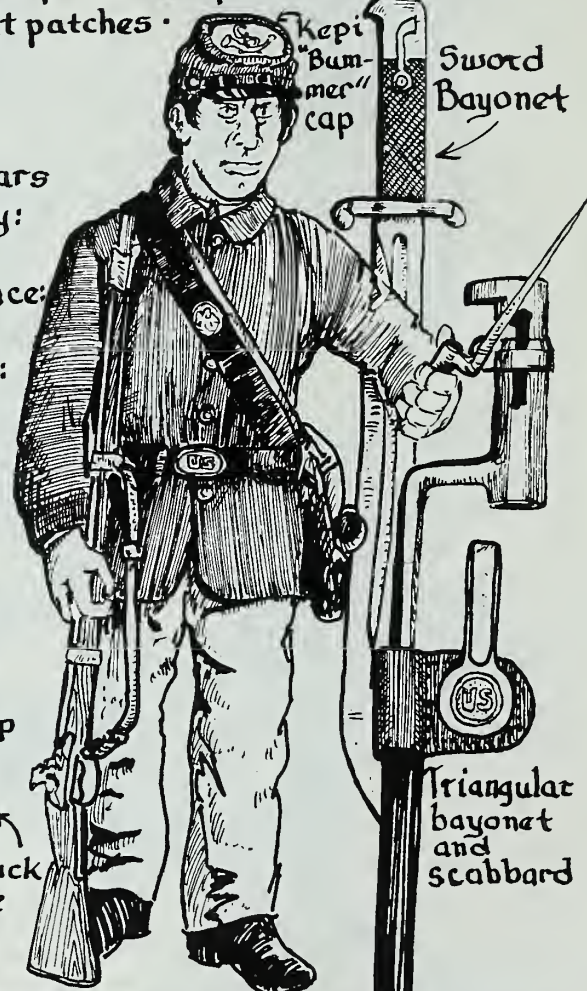
6<sup>th</sup> Corps



12<sup>th</sup> Corps



• 1<sup>st</sup> use of unit patches •



Kepi "Bum-mer" cap

Sword Bayonet

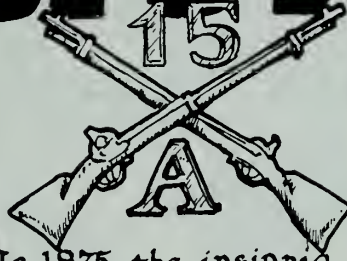
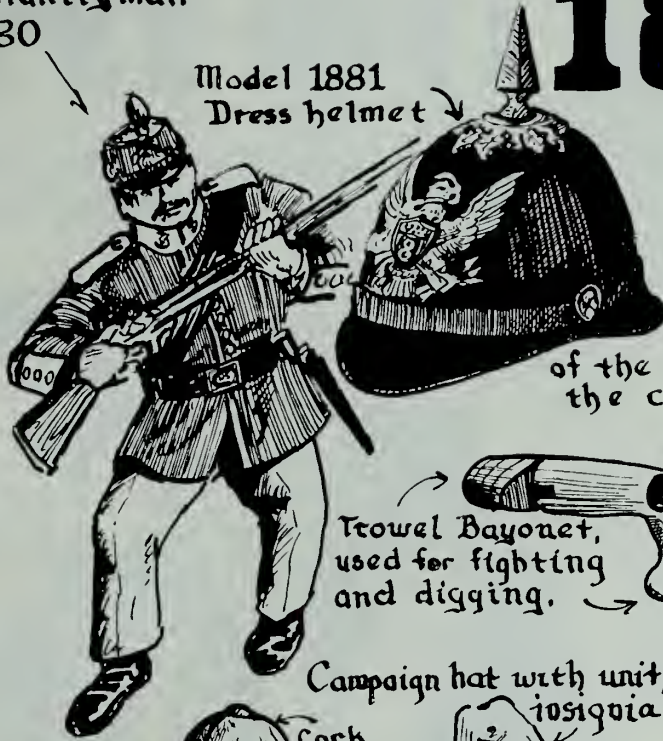
Triangular bayonet and scabbard



# U.S. INFANTRY 1875-1900

U.S. Infantryman  
1880

Model 1881  
Dress helmet



In 1875, the insignia  
of the U.S. Infantry became  
the crossed rifles.

Trowel Bayonet,  
used for fighting  
and digging.



Campaign hat with unit/branch  
insignia

M1892

Krag-Jorgenson  
.30 caliber, 5 round  
magazine

.30 caliber  
round for  
the Krag  
rifle

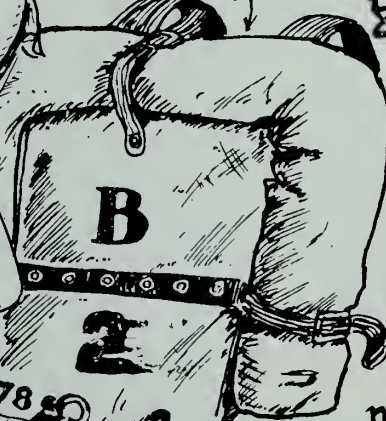


Cork  
Pith  
helmet

Equipment  
roll

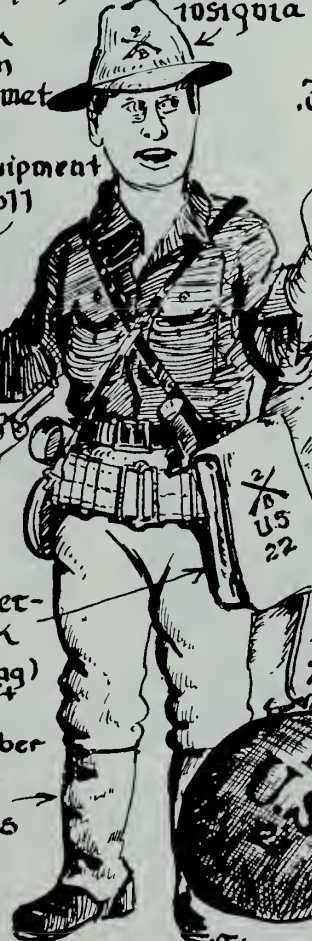


Canvas  
Knapsack (rucksack)  
with sleeping roll



Haver-  
sack  
(food bag)  
with unit  
and  
soldier  
number

Canvas  
Leggings



Mills

.30 cal. cartridge belt

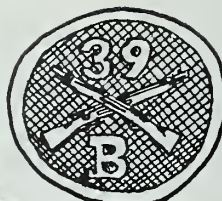


Tin canteen.





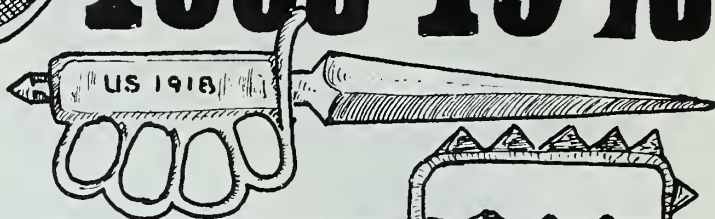
British style helmet



# U.S. INFANTRY 1900-1940



Collar brass  
Gas Mask



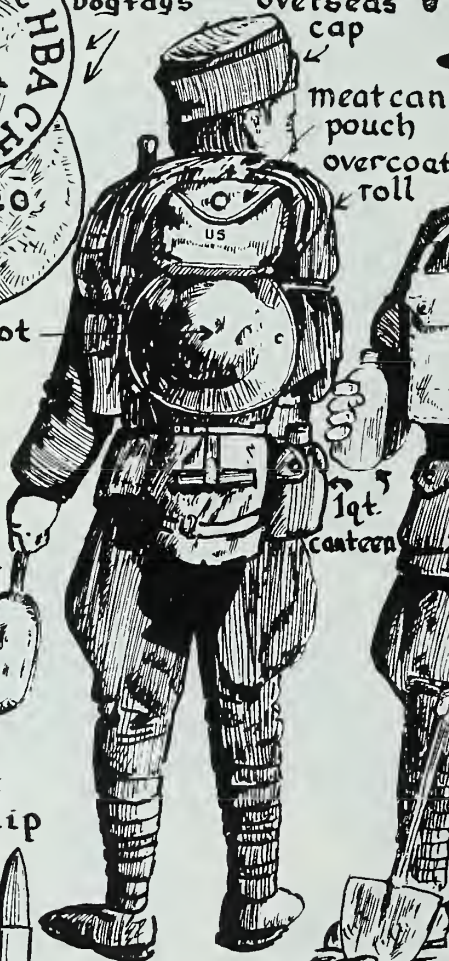
WWI Trench Knives  
Dogtags overseas cap

campaign hat  
Gas Mask carrier in "ALERT" position.

Ammo belt

Private's Base Pay:  
1913: \$15.00/month  
1920: \$30.00/month

meat can (mess kit)

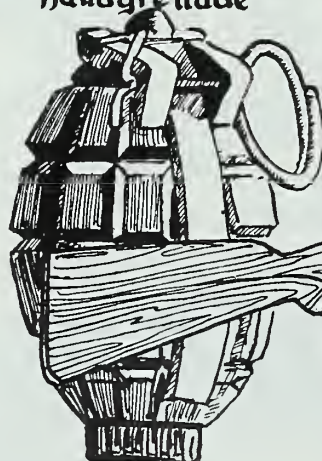


meat can pouch  
overcoat roll

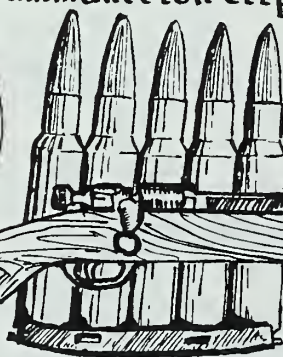
1qt. canteen

Take down pick

"Mill's Bomb" handgrenade

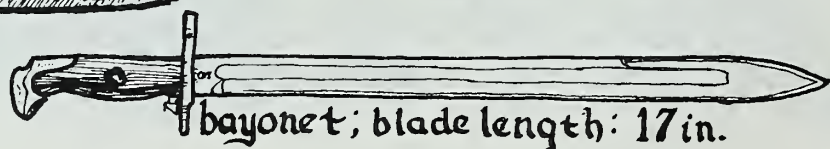


.30 caliber ammunition clip



leg wrappings  
entrenching tool

M1903 Springfield .30 caliber



bayonet; blade length: 17 in.



AIRBORNE  
a new way to get to  
the fight.

# U.S. INFANTRY 1940-1950

CURTIS M SCARROTTI  
7887985 O+  
CINDY SCARROTTI  
123 BRIDGE AVE  
LOGAN IO C



Combat Infantryman Badge  
(C.I.B.)

(WWII)

Dog tags  
(pre WWII)



Gas Mask  
(no voice meter)

folding  
entrenching tool

Private's Base Pay  
1941 \$40.00/month  
1942 \$50.00/month

M-1 Steel Pot



M-1  
Garand  
.30 caliber  
rifle

.30 caliber  
ammo  
clip for  
M-1 rifle



1 quart  
canteen

First aid  
dressing

Collar  
brass

Grenade pouch



M1918 B.A.R.  
Browning  
Automatic Rifle  
20 round .30 cal.  
magazine

MK 2 "Pineapple"  
Handgrenade

Casualty radius: 10 yards



# U.S. INFANTRY 1950-1960

Field  
Combat  
Pack

Pile cap



Parka

Combat Infantryman Badge-2<sup>nd</sup> Award

Ammo  
bandolier

T41 Antitank rifle grenade  
for M-1 Garand

Field Cargo Pack  
rigged to the  
bottom of the  
combat pack.

Rigging the  
blanket roll  
to the  
field combat  
pack

Plywood pack board

Starched  
utility cap

Protective  
Mask

.30 cal.  
ammo belt

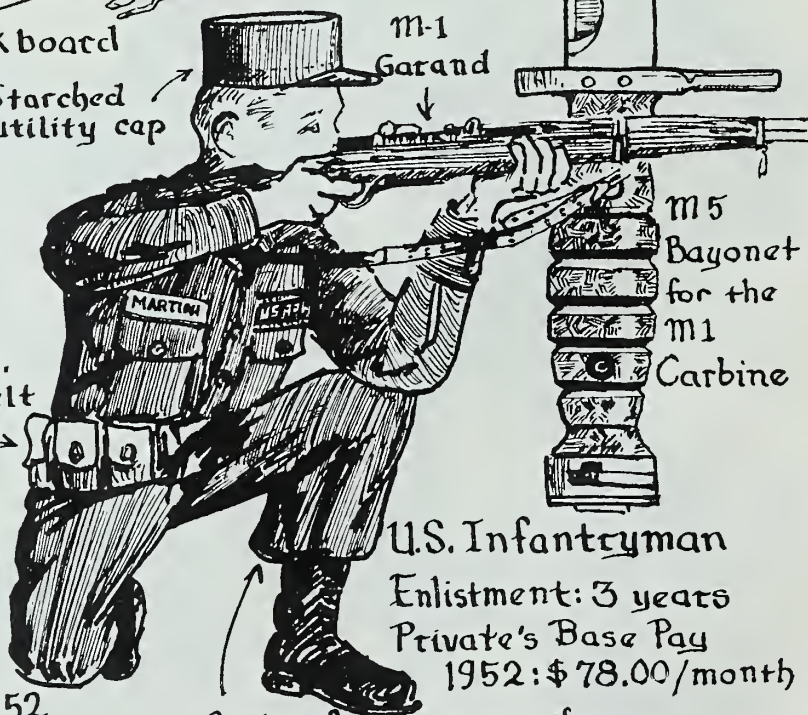
M-1  
Garand

M5  
Bayonet  
for the  
M1  
Carbine

U.S. Infantryman  
Enlistment: 3 years  
Private's Base Pay  
1952: \$78.00/month

M1952  
Flak vest

Cotton fatigue uniform





# U.S. INFANTRY 1960-1970

"AIR ASSAULT"  
a new way  
of moving  
around the  
battle field.



Combat Infantryman Badge - 3<sup>rd</sup> award

U.S. Infantryman  
Enlistment: 3 years  
Private's Base Pay  
1965 \$89.90/month  
1968 \$102.30/month

M113 Armored  
Personnel Carrier  
(A.P.C.)

"Base ball"  
utility cap →

Bush hat

Lightweight  
frame and  
nylon  
rucksack

Sleeping  
roll →

M1956  
"Butt-pack"  
folding  
entrenching  
tool

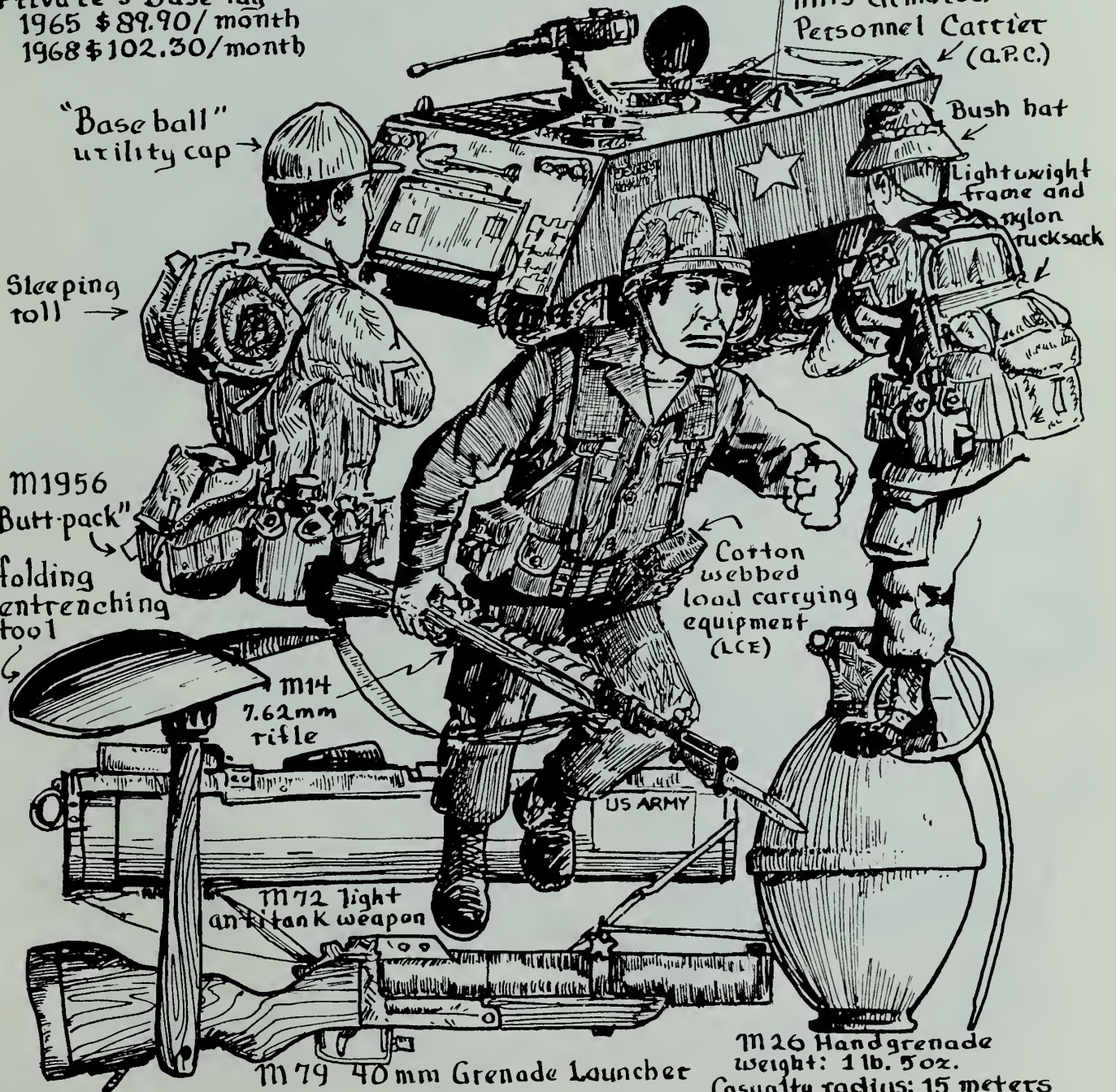
Cotton  
webbed  
load carrying  
equipment  
(LCE)

M14  
7.62mm  
rifle

M72 light  
antitank weapon

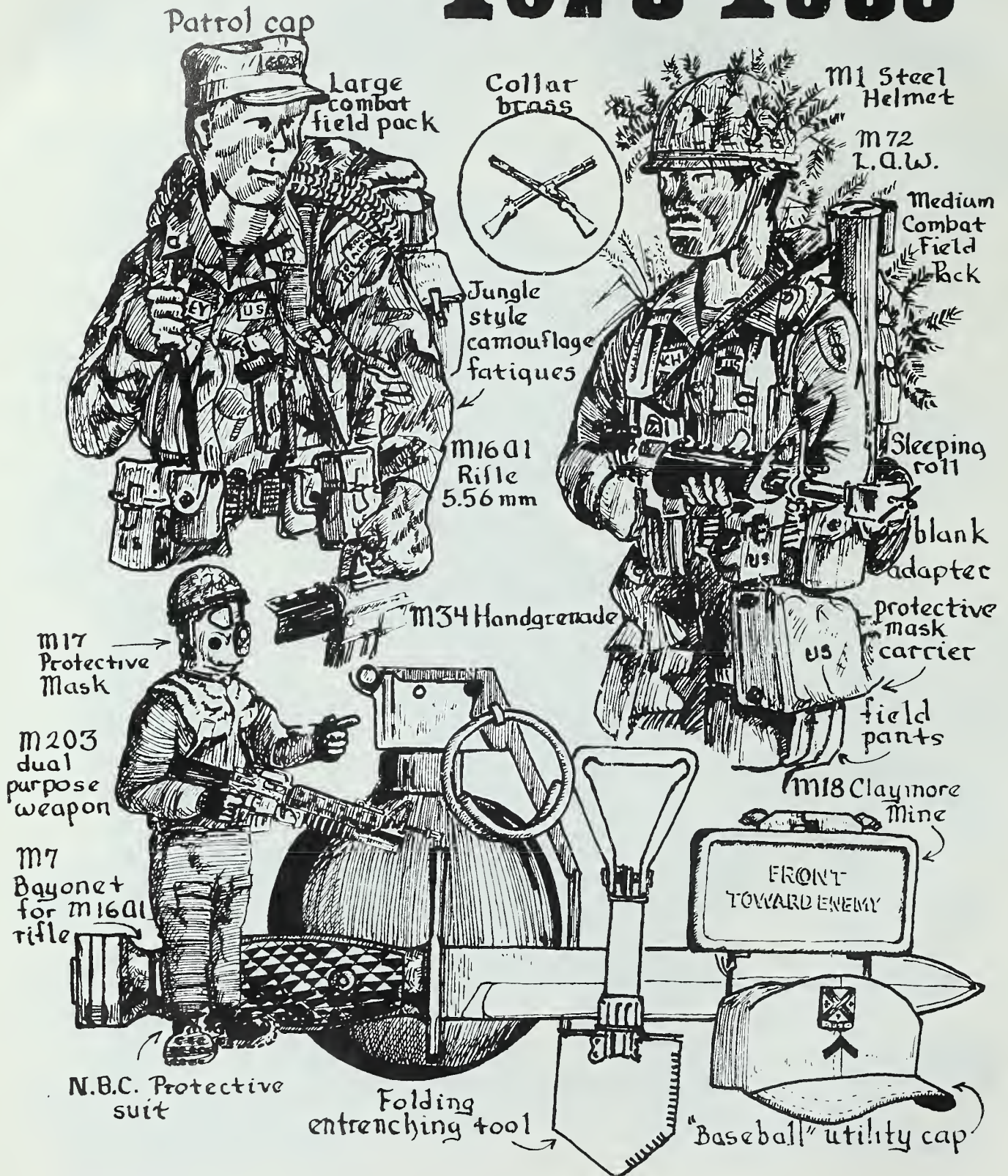
M79 40mm Grenade Launcher

M26 Handgrenade  
weight: 1lb. 5oz.  
Casualty radius: 15 meters





# U.S. INFANTRY 1970-1980

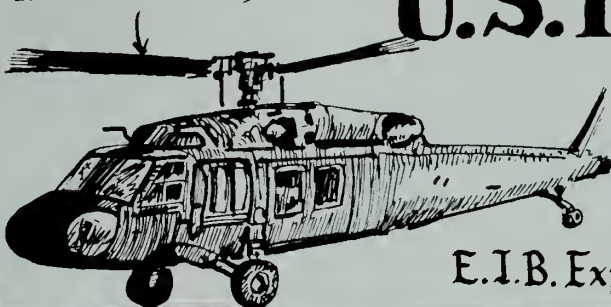




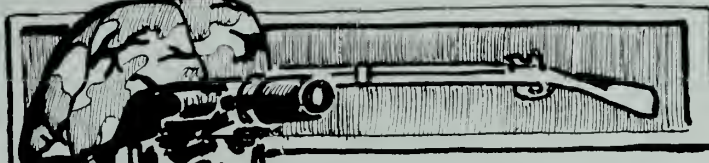
# U.S. INFANTRY 1980.

Individual Lift Device

UH-60 Blackhawk



E.I.B. Expert Infantryman Badge



Collar Brass

Kevlar Helmet with camouflage cover

AN/PVS7 Night Vision Goggles

M249 S.A.W. Squad Automatic Weapon, 5.56mm

Weight: 14 lbs.

rate of fire: 700-1100 rpm

Body Armor 13 layers of Kevlar weight: 8.5 lbs

7.62mm Coax 25mm automatic gun

TOW Antitank Missiles

Battle Dress Uniform BDU

M2 Bradley Infantry Fighting Vehicle (BIFV)

BDU cap





A few years back, a *Bundeswehr* team toured major United States Army training centers and gave a presentation on a command technique the Germans call *Auftragstaktik*. The team translated this word as “mission-type” or “mission-oriented” control, but this rendition is doubly unfortunate: It is neither accurate nor elegant, and it focuses the American and British soldier’s eye straight onto Paragraph 2 of the operations order instead of on Subparagraphs 3a and 3b. I recently had both reason and opportunity to study this technique and I prefer to use another term for it: “directive control.” This is easy to say and it conveys the full and precise meaning of *Auftragstaktik*.

I don’t know how much effect the *Bundeswehr* presentation had at the time, but the theme is now highly topical. Directive control, in fact, appears to be the key to the effective implementation of maneuver theory as explained in Field Manual 100-5, Operations. I know of no other command technique that offers the speed and precision of response to match the tempo of the maneuver warfare of the future.

Just as directive control is the key to responsiveness, the key to directive control is a chain of trust and mutual respect that runs unbroken from the senior operational commander (army group or whatever) to the squad leader and the tank commander. I have fully explored the upper and middle links of this chain in a book to be released soon. Here, however, I want to address the problems of the lowest links and to demonstrate that the chain needs

one more link — from squad or fire team commander to the soldier in the ranks.

As a foreigner, I must admit that I had some difficulty finding a major American sport to use as an analogy. Football, ice hockey, and basketball, for example, are all controlled by a coach who calls prearranged plays from the sidelines, and these games are frequently interrupted for changes of players and various forms of time out. They are, therefore, an exact sporting analog of the control of troops by detailed orders (*Befehlstaktik*). In baseball, batting and running between bases may call for instant judgmental decisions, but essentially these decisions are made on the individual level. So I hope enough U.S. Infantrymen now watch soccer on television for me to use it as common ground.

In soccer, the team captain, a player, exercises both leadership and tactical command, and the play flows on with as few interruptions as possible. The basis of success is “horizontal team spirit” — horizontal in the sense that there are only two levels, the skipper and the rest. In certain situations a player (the goalkeeper facing a corner kick, for instance) assumes local tactical command. Otherwise, the skipper issues orders only when a change of tactics is called for. The players respond to the situation as they see fit on the basis of their individual skills, their team training, and the situation itself. “Running off the ball” (maneuver) is at least as important as playing it or tackling (combat).

The players’ freedom of action is restricted in three



BRIGADIER RICHARD E. SIMPKIN  
British Army (Retired)

ways: first, by the rules of the game and the actual situation (which together correspond to the total situation in war); and, second, by conforming to certain principles and drills that have been found to pay off. In soccer and war alike, these are a matter of training; some of them may be covered by “set pieces” (SOPs). Then, third, there are such one-time conditions as the state of the pitch, the makeup of one’s own team on a given day, and, above all, the characteristics of the opposition. The coach has to brief his team on these conditions before the game and must issue special instructions on preferred plays and on moves or techniques that are to be avoided.

To complete this sporting analogy, though, we must push it one stage further. In an isolated match, or in the final of a major competition, the aim is simply to win. But now consider a league competition that lasts the whole season. Here the outcome of an individual game is important, but winning it is only an immediate (tactical) aim. The ultimate (operational) aim is to win the league. Broad decisions on the training and the methods needed to achieve this are made not by the captain but by the coach or manager (the operational commander). And matters affecting the resources available, such as buying and selling players or fostering support, are decided upon one level higher still, by the club’s chairman or board of management (the strategic commander or war cabinet).

This higher-level planning may call for decisions that trade off immediate benefits for long-haul advantages — buying promising young players — or for decisions that reduce the chances of winning a particular game — resting key players or playing so as not to lose, which is quite different from playing to win.

We now have three levels of command, each of which makes a different functional contribution to the overall aim of winning the league. Yet the club must remain a single entity. All three levels must pull together, just as the players must cooperate with one another. At the same time, each level and each individual within it must be given the freedom of action to make the best possible contribution. This is what I mean by “vertical team spirit” — the moral basis of directive control.

I will next address what I believe to be the underlying and characteristic principle of directive control, using terms I have arrived at by studying the relevant parts of German command manuals from the 1920s to the present, and from discussions with distinguished German officers and with interpreters of the doctrine. Because these manuals are on a razor edge between coordinated initiative and anarchy, they tend to be a bit misleading in some of the key issues. Discussion and historical example are much more helpful.

From these I am in no doubt whatever that *nothing laid down from above in advance is sacrosanct*. It was Helmuth von Moltke (the elder) who coined the phrase we know as “No plan survives contact.” A subordinate commander, applying his trained judgment, is justified, in the light of his superior’s intention, in modifying or even changing the task assigned him. As one source

makes clear, in the last resort, he would even be right to go against his superior’s expressed intention in the light of some broader intention that he knew of. That’s quite a bellyful in more senses than one. What I think it means at root is that culpable insubordination ceases to be a matter of disobedience to a specific order and becomes a matter of intent — just as proof of guilty intent is required to sustain a murder charge. This is why the whole thing has to turn on mutual respect and trust.

Under both “control by detailed orders” (the Anglo-American system) and directive control, a commander exposed to fire in effect entrusts his life to his subordinates when he issues orders that delegate action to them. The difference is that in control by detailed orders he relies only on their skill and courage. His subordinates must do what he has told them or die in the attempt. But under directive control he relies on their judgment as well. (I know he should probably be leading from the front, but I have ruled this out here to highlight a fundamental point.)

Not even in the *Wehrmacht*, though, was the principle of directive control universal. Off the field of battle, discipline was a matter of orders and obedience, as we understand them. In action, too, the principle was sometimes overridden. A “strong” superior commander would get things done the way he wanted by force of personality and status. Or sometimes a superior, perhaps two levels up, would issue what General F.W. Mellenthin has aptly described as a “mission in blinkers” — in effect a direct order. Significantly, a large proportion of the specific failures in Erich von Manstein’s defense of the Ukraine in 1944 were due to infringements of the principle of directive control — often to the extent of overriding a protest from the commander on the spot.

By contrast, the Germans — unlike the Americans and the British — accept the principle of *forward control* by higher tactical commanders. On two famous occasions, Erwin Rommel and Hasso von Manteuffel (both divisional commanders at the time) actually assumed command of the leading subunit. Manteuffel puts it like this:

*I was always located where I could see and hear what was going on “in front,” that is near the enemy, and around myself — namely at the focal point! Nothing and nobody can replace a personal impression.*

As I see it, the *quid pro quo* of control by detailed orders is noninterference once orders have been issued. Given mutual trust and respect, it surely makes sense for the most talented and experienced man to be on the spot, if he can, to make the crucial decision.

## ELEMENTS OF DIRECTIVE CONTROL

The controlling operational commander studies the situation (*Lage*) and forms his intention (*Absicht*). He explains this intention to his subordinates, perhaps two levels down, and it becomes their ultimate guideline. Next (again perhaps two levels down), he lays down the task





(*Auftrag*) assigned to each subordinate; this becomes the subordinate's principal immediate guideline. He then gives the resources (*Mittel*) allocated to each subordinate, and the coordinating instructions. (These were at one stage referred to as constraints, but the latest German command manual uses the word *koordinieren*, which strikes me as more positive.) Within this framework, of situation, task, resources, and coordination, the subordinate has freedom of action.

Much of the coordinating detail found in U.S. operations orders and annexes is covered in SOPs. But wherever the need for judgment may arise, these SOPs are themselves framed on the principle of directive control. We can forget about this detail, which in the future will be covered by data processing and transmission down to brigade and probably battalion level. Likewise, the mechanics of directive control, simple as they are, mainly concern higher levels. So I will leave it at that and drive the point home by stressing that the *Wehrmacht's* army operations orders for major operations during World War II often covered just one quarto page, and never more than three or four.

The clue to freedom of action without chaos lies in immediate, full, and accurate reporting. Covering up foul-ups and errors of judgment is not acceptable. But this is only one side of the coin of mutual trust. To make sure commanders and key staff officers are in one another's minds, briefings and discussions between levels have to be as continuous as circumstances allow. In the ideal, command decisions are not so much made at the top level as they are generated from the bottom up — whence the title of this article, a particularly apt phrase recently used in *INFANTRY* by Steven L. Canby (see July-August 1984, p. 28).

Every platoon commander in every army is trained to command a company (one level up) and to think "two down" (to the squad leader) while doing so. To achieve

its full flexibility, directive control calls for harmony in thinking two up and two down. This means that, to be able to replace a casualty in the field, a commander must know enough about handling a brigade to be able to interpret the situation to the brigade staff, as well as to the divisional staff if he should suddenly have to take over a battalion. This may sound fantastic, but it has been an important principle in the training of German officers, especially General Staff officers, ever since the days of the elder Moltke. By the same token, a soldier in the ranks should be told enough to give him a good working understanding of the company plan and also an inkling of what the battalion is trying to do.

There seems to be considerable difference of opinion among German officers of various arms and vintages about the appropriateness of tasking two down. The more deliberate school feels that every level of headquarters has a contribution to make to the plan and should be given the opportunity to make it. But *Wehrmacht* practice in maneuver warfare was frequently to task two levels down. (Some of my recent studies suggest that tasking two down, like *thinking* two down, makes good sense.)

Looking up from a combat unit to the heights, one is apt to be reminded of the rhyme: "Big fleas have little fleas upon their backs to bite 'em; and little fleas have lesser fleas, and so ad infinitum."

In fact, though, different levels of headquarters have different functions. From the controlling operational headquarters (say, army) down to the company, the planning and the executing headquarters alternate. For example, at operational level, an army plans while a corps executes, so the army tasks the higher tactical formation — division. At the higher tactical level, the division plans and a brigade (or task force) executes, so the division tasks its battalion (or even company) combat teams. At the lower tactical level, the battalion plans, and a company executes. But the battalion doesn't usually task platoons because from company down there's little planning and a lot of doing.

If you went around asking the officers and enlisted men of modern armies in the Western democracies where the weak links in the chain of command were, the only printable answer you'd get would be: "We don't have any in *our* outfit." Under pressure, though, some might allow that "all the links are strong, but some are stronger than others."

The fact is, there are and always will be weak links in any chain of command in the armed forces and in industry alike. They come in two kinds — systemic weaknesses, like the Soviets' officer/NCO gap (which they had to set about bridging with a new kind of warrant officer), and individual weaknesses because some folks are better soldiers than others, and some get promoted to the point where they ceiling out (as in the "Peter Principle"). Directive control requires an unbroken chain of trust and mutual respect from top to bottom. Systemic weaknesses have to be identified, faced up to frankly,

and eliminated. Individual weaknesses, which will never be eliminated, have to be bridged by a special kind of discipline.

There are maybe three kinds of discipline. The easiest to achieve and most fragile is *imposed* discipline, associated with conventional recruit training and control by detailed orders. Next comes *accepted* discipline, which one might describe as “passive team spirit”; this generally prevails in good field force units. The third is what I’d like to call *self-generating* discipline; this is the same thing as team spirit in the full sense, where each man thinks for the team and acts on his own initiative in its best interests. Few, I think, would question this as a goal; the only small problem is how to get there.

## TRAINING FOR MORAL LEADERSHIP

I hate phrases like “moral leadership,” but this happens to be the most widely accepted term to use here. Let me cut it down to size. If “leadership” is getting other people to do something they don’t want to do, “moral leadership” is working out what you ought to do, then forcing yourself to do it for the sake of the team — in other words, self-generating discipline.

There are at least three good reasons why soldiers should be brought up this way from the moment they join. As the U.S. Army Infantry School is better aware than most, NATO’s greatest asset is not the chip, but the “chip off the old block” — the intelligent, educated, independent-minded, resilient, democratic citizen of a soldier. Training should develop these qualities from the start instead of crushing them. Second, just as the child is the father of the man, the rookie is father of the NCO; soldiers need to begin the way they mean to continue. Third, whether it is a large-scale mechanized maneuver, a heliborne assault, or a quasi-guerrilla activity in the hills, the kind of tempo that will win tomorrow’s war requires a flexibility that only directive control can achieve. (I know that what I am going to describe is very much the way the U.S. Army trains its Rangers, but maybe I can provide a new slant or two.)

This training philosophy stems in fact from Kurt Hahn, who founded a boy’s school called Salem (Germany) that was based on it. Tossed out of Germany by the Nazis, he founded Gordonstoun, where the Duke of Edinburgh and his sons were educated. The Duke, then a serving naval officer, fed the idea into the Royal Navy under the name “expedition training.” Then it also caught on in the British Army, which was at that time giving much thought to actions by remnants of units after battlefield nuclear strikes.

In expedition training, no direct effort is made to “knock people into shape” or to impose a stereotype. Rather, those individuals undergoing the training are immersed in a carefully but discreetly controlled general environment that is designed to develop in them certain aspects of character from within. This is complemented

by special environments (mostly arduous or dangerous sports) that entail a genuine if remote risk to life and that can be mastered only by combining individual skill and initiative with teamwork. Evidently both general and special environments can be oriented toward physical or mental attainment, and toward specific goals within these categories. But balance and versatility are key elements in this approach.

The pressures generated this way are far greater than those produced by conventional training and team games. Typically, four to five percent of the trainees will either crack up or drop out, which is fine. Likewise, some of them will achieve far more than others. This is an aid to selection for promotion or specialist training. But it has no adverse effect, for one of the goals is to make the trainees bring out the best in themselves and also get to know both their limits and their limitations.

The problem with applying this philosophy to the basic training of an army lies in creating a right atmosphere without preselection (as for Rangers or noncommissioned officers) or the example set by trained men in a good field force unit. The solution for the U.S. Army may be to send recruits straight to training companies within field force units located in the continental United States.

The effective application of maneuver theory to all forms of warfare calls for flexibility, speed, and precision of response to a degree that can be achieved only by directive control (*Auftragstaktik*). Directive control gives subordinates right down the line the greatest possible freedom of action in accomplishing the task set for them, even the right to modify the task itself without specific approval.

Mechanically, directive control is a very simple system, but morally, it requires a kind of vertical team spirit — an unbroken chain of trust and mutual respect upward and downward all the way from top to bottom. This in turn calls for new thinking about the training of officers and enlisted men alike. The primary aim of training should be to develop character and individuality so as to create a self-generating discipline.

There is a suitable training philosophy, generally referred to as “moral leadership,” and it has been extensively adopted (and adapted) in the British armed forces. The main problem in applying this approach to recruits army-wide is that the creation of the right atmosphere may require the preselection of trainees, or the example set by bodies of trained soldiers.

But the Soviet airborne forces appear to have set themselves the goal of bringing every man to *spetsnaz* (special forces) standards. So “Every Infantryman a Ranger” could be a fair challenge for the U.S. Army.



Brigadier Richard E. Simpkin, British Army (Retired), writes and lectures and runs a language consultancy in Scotland. He has published extensively; his works include several books and many articles in *INFANTRY* and other military journals.



# TRAINING NOTES



## Doctrinal Publications

MAJOR BRUCE D. MACKEY

The production of doctrinal literature for the field that takes place in the Combined Arms and Tactics Department (CATD) of the Infantry School continues to receive top priority.

One of the most recently published and most significant additions to the Division 86 family of field manuals is the coordinating draft of FM 71-2J, The Tank and Mechanized Infantry Battalion Task Force. This AirLand

battle manual is the result of many months of work with the Armor School, a co-proponent, and with many subject matter experts from various other Training and Doctrine Command (TRADOC) schools and

<u>NUMBER</u>	<u>TITLE</u>	<u>STATUS</u>
<u>MECHANIZED INFANTRY</u>		
FM 7-7	The Mechanized Infantry Platoon/Squad (M113)	DA Pinpoint est. Mar-May 85.
FM 7-7J	The Mechanized Infantry Platoon/Squad (BFV)	DA Pinpoint est. Jul-Aug 85.
FM 71-1J	The Tank and Mechanized Infantry Company Team (Co-produced by Infantry and Armor Schools)	Coordinating draft Apr 85.
FM 71-2J	The Tank and Mechanized Infantry Battalion Task Force (Co-produced by Infantry and Armor Schools)	Coordinating draft distributed Dec 84.
FM 71-3	The Mechanized Infantry Brigade (Co-produced by Infantry and Armor Schools)	Coordinating draft Apr 85.
<u>INFANTRY, AIRBORNE, AIR ASSAULT</u>		
FM 7-8 Change 1	The Infantry Platoon/Squad	Published Jun 80. Published Aug 84.
FM 7-10 Change 1	The Infantry Company	Published Jan 82. Scheduled Jun 85.
FM 7-20 FM 7-85	The Infantry Brigade Ranger Operations	Published Dec 84. Coordinating draft Sep 85.
FM 90-4	Air Assault Operations	Coordinating draft Jun 85.

#### LIGHT DIVISION

FM 7-70	The Light Infantry Platoon/Squad	Coordinating draft Sep 86. (See FC 7-15)
FM 7-71	The Light Infantry Company	Coordinating draft Jun 86. (See FC 7-14)
FM 7-72	The Light Infantry Battalion	Coordinating draft Mar 86. (See FC 7-13)
FM 7-73	The Light Infantry Brigade	Coordinating draft Sep 85. (See FC 7-13)

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#### 9TH INFANTRY DIVISION (MOTORIZED)

FM 7-51	The Motorized Infantry Squad, Platoon and Company	Coordinating draft TBD
FM 7-53	The Assault Gun Squad, Platoon and Company	Coordinating draft TBD
FM 7-54	The Combined Arms Battalion (Heavy/Light)	Coordinating draft TBD
FM 7-56	The Light Attack Squad, Platoon and Company	Coordinating draft TBD
FM 7-57	The Light Attack Battalion	Coordinating draft TBD

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#### OTHER

FM 7-90	Tactical Employment of Mortars	DA Pinpoint est. Jul-Aug 85.
FM 7-91	Antiarmor Operations in Infantry Units	Coordinating draft Mar 85.
FM 7-93	The Long-Range Surveillance Unit	Coordinating draft Jun 85.
FM 21-75	Combat Skills of the Individual Soldier	Published Aug 84.
FM 90-5	Jungle Operations	Published Aug 82.
FM 90-8	Counter guerrilla Operations	Coordinating draft Sep 84.
FM 90-10-1	An Infantryman's Guide to Urban Combat	Published Nov 82.

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#### FIELD CIRCULARS

FC 7-11	Fighting in Forests	Est. Mar 85.
FC 7-12	Fighting in Mountains	Est. Mar 85.
FC 7-13	Light Infantry Battalion and Brigade Operations and AMTP	Est. Mar 85.
FC 7-14	Light Infantry Company Operations and AMTP	Est. Mar 85.
FC 7-15	Light Infantry Squad and Platoon Operations and AMTP	Published Dec 84.
FC 71-1	The Division 86 Company Team SOP (Co-produced by Infantry and Armor Schools)	Est. Jun 85.
FC 71-2	The Division 86 Battalion Task Force SOP (Co-produced by Infantry and Armor Schools)	Est. Mar 85.
FC 71-3	The Armored and Mechanized Infantry Brigade SOP (Co-produced by Infantry and Armor Schools)	Est. Jun 85.
FC 71-6	Battalion and Brigade Command and Control Techniques (Co-produced by Infantry and Armor Schools)	Est. Mar 85.
FC 71-50	Attack and Assault of a Complex Obstacle System	Published Nov 83.



## DIALOGUE FILMS (Available on order from TASC)

82-1	Transition Mixes — M1/M113, M2/M60	Released Feb 82.
82-2	Bradley Infantry Fighting Vehicle Training Strategy	Released Jul 82.
82-3	The Bradley/Abrams Tank Force	Released Sep 82.
83-1	The Bradley Infantry Fighting Vehicle Platoon and Squad	Released Apr 83.
83-3	Heavy/Light Concept	Released Mar 84.

the National Training Center.

In addition, the Mechanized Infantry Platoon/Squad, BIFV (FM 7-7J); Battalion and Brigade Command and Control Techniques (FC 71-6); and The Division 86 Battalion Task Force SOP (FC 71-2) are in their final stages of development prior to publication.

Field Circulars (FC) are currently being prepared for the new light infantry division. These publications will provide light infantry soldiers and leaders with the doctrinal know-how to fight, train, and evaluate. Each circular includes the ARTEP Mission Training Plan (AMTP) and emphasizes the divisional units' unique differences in organization, equipment, and capabilities.

Periodically, CATD receives in-

quiries about its publication process. Doctrinal manuals are initially produced in a preliminary draft format after an outline has been internally developed, staffed, and approved. A coordinating draft is then published and sent to the field for additional review and comment.

CATD regards this field review as one of the most important steps in developing a good manual and depends on a thorough and professional review to make sure its manuals are realistic and complete. The comments from the field are then incorporated into the final draft text process.

The current status of the publications for which CATD has proponentcy is shown on the accompanying chart.

(It should be noted that FMs are normally received through pinpoint distribution channels. FCs are distributed on a one-time selected-distribution basis, and MACOMs are authorized to reproduce the circulars as needed.)

The Infantry School stresses the importance of input from the field in the development of its doctrinal and training publications. Questions or comments on a specific doctrinal manual or field circular should be sent on a DD Form 2028 to Commandant, U.S. Army Infantry School, ATTN: ATSH-I-V-PM, Fort Benning, GA 31905; AUTOVON 835-1653/1210.

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Major Bruce D. Mackey is assigned to the Doctrinal Literature Division of the Combined Arms and Tactics Department of the Infantry School.

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# Logical Antiarmor Training

CAPTAIN JAMES LENIHAN

It seems like everyone has an opinion on how to conduct good antiarmor training for Dragon and TOW gunners and crews. For the most part our leaders have been successful in converting the emphasis on tracking to an emphasis on crew and gunner task performance. As a result, we have increased the proficiency and the basic task performance of our crews and

gunners, although one problem continues to plague our leaders — how to train antiarmor gunners to track not only accurately but confidently. In spite of the obvious differences between the TOW and the Dragon, gunners for both systems suffer from the same frustration and loss of confidence when they cannot track a target effectively, and both can be helped by

a logical tracking program.

The Launch Effects Trainer (LET) for the Dragon and the M70 TOW Trainer are not the most effective ways to train gunners, although they can and should be used as an integral part of an antiarmor tracking program. Anyone who has ever had a chance to use these devices to track realizes the difficulties involved and

the ensuing frustration. Almost as important is the fact that these systems limit the use of our most valuable training assets — our noncommissioned officers. Both devices do give an NCO supervisor a score or a read-out, but unless he has an extensive background in TOW training, a supervisor cannot “read” gunner errors or correct mistakes that he cannot see.

## START AT BEGINNING

For a gunner, keeping the crosshairs on a target is the most difficult thing he has to do. Yet that is the first thing we force him to do when we use the M70 or the LET to train him. This is almost like trying to teach basic rifle marksmanship using only 300-meter targets. We need to start the gunner at the beginning, instead, and let him work his way up. Therefore, a program for antiarmor gunners should be broken down into three phases — initial, intermediate, and advanced.

During the initial training phase, a gunner should be required to track a tactical vehicle that is moving cross country at a relatively short range (300 to 400 meters). Through the use of the Sony Rover TV Trainer (TVT), an NCO supervisor can monitor the gunner's tracking performance. (Sony Rovers can be ordered through Training Aids Support Centers using unit funds or hand-receipted from TASCs that carry them. Change 3 to FM 23-23 provides information on how to set up and use the equipment and gives the NSNs for the mounting brackets for the TOW and the Dragon.) By collimating the day-sight tracker with the Sony camera (using the field expedient method also found in Change 3) and by drawing crosshairs on the monitor to match the gunner's sight picture, an NCO can see the same picture the gunner sees. (See also “Training TOW Gunners,” by Major Michael V. Harper and Major Patrick H. Orell, *INFANTRY*, January-February 1979, pages 12-14.)

By watching the monitor, the NCO can make corrections about the target's center of mass, the gunner's breathing, and the tracking rate. In

addition, the gunner can have his exercise played back to him so he can see his mistakes, hear his supervisor's guidance, and see his own subsequent corrections. This method also positively reinforces teaching procedures. The gunner can stand back and observe his proper sight picture and his tracking efforts.

Once a gunner has demonstrated his proficiency at this initial training level, he should move on to the intermediate level. An intermediate tracking exercise should include a moving target at an intermediate range (400 to 600 meters for the Dragon, 1,000 to 1,500 meters for the TOW); frontal, flank, and oblique shots when the terrain permits; and the use of evasive target vehicles to improve the gunner's tracking ability.

It should be noted here that while there is some loss of continuity between the day-sight tracker and the Sony Rover at the intermediate ranges, the target on the monitor is smaller because the Sony camera operates at less than 13 power. The gunner's performance can still be evaluated with reasonable accuracy, however, if a supervisor will spend a little time familiarizing himself with these differences.

A significant amount of time should be spent in this second phase, because it allows gunners to hone their tracking skills. Wherever the terrain permits it, gunners should also be trained to track targets at the maximum range of their weapons using M64 and M880 launch simulators — but only after they have demonstrated complete competence in tracking at the shorter ranges.

The tracking exercises of the advanced phase should be designed to train gunners in gunnery skills. Beginning back at the short ranges, and again using the Sony Rover TVT, the gunners should be taught to track a “spot on the vehicle.” This requires three things from both the gunner and his supervisor: vehicle identification (friend or foe and what type); knowledge of the vulnerable spots on the vehicle; and tracking discipline.

In a training scenario, for example,

an NCO supervisor might tell a gunner what type of vehicle he is engaging. The gunner would then have to identify the vehicle's vulnerable areas and track one of these “hot spots.” The supervisor could monitor the soldier's tracking by watching the screen and making appropriate corrections. (This is a difficult task. But gunners and crews who can identify enemy vehicles, locate their vulnerable spots, and track those spots are virtually guaranteed first round hits, as long as they are using functional equipment.) The gunner's tracking performance can then be empirically evaluated using the LET or M70 trainers, although these are only methods of *assessing* advanced gunner skills. In other words, they should be used in conjunction with other training, not instead of it.

## MILES

The Multiple Integrated Laser Engagement System (MILES) is another exceptional tool that can be used to assess the performance of gunners and crews. It can determine the crew's ability to react differently when under fire as well as assess the use of cover and concealment. But it should not be used in training or in assessing tracking.

It should be mentioned, too, that the Sony Rover is compatible with the M901 Improved TOW Vehicle (ITV). In fact, the Weapons, Gunnery, and Maintenance Department of the Infantry School has incorporated the Sony Rover into the program of instruction of its ITV trainer course.

While there is no guaranteed way to produce accurate gunners, a logical, sequential tracking program for TOW and Dragon gunners will increase the proficiency of gunners and crews and actually speed up a unit's training time.

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Captain James Lenihan served as an antiarmor trainer at Fort Hood and as chief of the antiarmor/missile division of the Weapons, Gunnery, and Maintenance Department of the Infantry School. He is presently assigned to the 197th Infantry Brigade.

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# CALFEX:

## Tactical Training with a Purpose

CAPTAIN E.J. NUSBAUM  
CAPTAIN JOHN T. ROBINSON

The combined arms concept governs the way the U.S. Army is training to fight the AirLand Battle. It is discussed at great length during service school courses and in gameboard simulations. But before soldiers and small-unit leaders can get a real appreciation for combined arms and gain an ability to use the concept, they must be allowed to apply it in a realistic situation. The 1st Battalion, 18th Infantry conducted a successful combined arms live fire exercise (CALFEX) at Fort Riley in 1982, and a summary of the battalion's experiences may provide a "how to do it" for other units.

This CALFEX focused on three rifle companies, each of which conducted a 48-hour exercise. The battalion conducted the entire exercise in five days, as shown in Table 1. Elements of the combat support company were attached to the company teams

or otherwise supported their operations. Command and control was furnished by the battalion tactical operations center in the field, and support to each team was provided from the battalion trains. The CALFEX gave the battalion's soldiers and leaders alike an opportunity to see the effects of combined arms operations, and it also gave the leaders an opportunity to plan and control combined arms assets in a live fire exercise.

Organizing and coordinating the CALFEX was complex and demanding. In fact, the event was planned as a graduation exercise for which the units would have to train.

All the battalion assets were used, and the battalion coordinated with a large number of outside organizations. Battalion planners, for example, began their coordination with the air elements for close air support and

attack helicopters 120 days before the scheduled event. The times and number of sorties, together with the types of desired ordnance for each sortie, were confirmed.

Coordinating a firing battery and the necessary ammunition was only one part of the field artillery support. The fire support team (FIST) for each company and the battalion fire support element (FSE) had to become fully involved in the planning phase of the exercise, and they also participated in the preliminary training before the actual exercise.

Before the exercise, too, combat engineers were used to prepare obstacles in the maneuver area. The materials the engineers needed had to be anticipated and obtained and the equipment requested. Like the artillerymen, the engineers were integrated into all pre-CALFEX training. Sup-

<u>CALFEX Schedule</u>					
	MON	TUE	WED	THU	FRI
Co A	Tactical move Occupy TAA	Dry attack Live atk/def Delay Occupy TAA	Shakedown Tactical move Recovery		
Co B		Tactical move Occupy TAA	Dry attack Live atk/def Delay Occupy TAA	Shakedown Tactical move Recovery	
Co C			Tactical move Occupy TAA	Dry attack Live atk/def Delay Occupy TAA	Shakedown Recovery

Table 1

Table 1

porting armor platoons also trained with their designated mechanized infantry companies during the pre-CALFEX period.

In addition to these combined arms elements, several post agencies were involved in the coordination process. Range control, for instance, played an important part in the planning, because range and training area requirements, including pre-training requirements, had to be arranged for and confirmed. Extensive range preparation was also required; the objective had to be prepared, hard targets emplaced, and range fans drawn and approved.

Class III and V supplies for all participating units also had to be coordinated during the planning phase. The coordination of Class V supplies was a key area. A large draw and turn-in had to be anticipated and scheduled by both the supply and transportation platoon and the ammunition supply point (ASP). Class V needs also had to be coordinated between all of the supporting units and the ASP (See Table 2).

The presence of controllers and

<u>Ammunition Expended</u> (three company teams)	
<u>Type</u>	<u>Amount</u>
5.56 Ball	19,540
7.62 Ball	9,648
.50 Cal API	14,075
M85, .50 Cal	1,405
81mm HE	150
4.2 HE	150
4.2 Illumination	60
4.2 WP	30
TOW	6
155 HE	414
155 WP	18
155 Smoke	18
105 HEAT/TPT	60
20mm Cannon	1,020
2.75-inch Rocket	60
40mm Practice	300
35mm Subcaliber	42
(Does not include USAF ordnance.)	

Table 2

<u>Sequence of Events</u>		
<u>Time</u>	<u>Event</u>	<u>Task No.</u>
<u>Day 1</u>		
0800	Prepare for Operations	3-I-1
	Receive Bn TF OPORD	3-I-2
	Prepare & Inspect Equipment	3-I-6
	Issue Team OPORD	3-V-1-1
1300	Conduct Tactical Roadmarch	3-V-1-3
	Operate Quartering Party	3-V-1-4
	Cross SP	3-V-1-6
	Maintain Security	3-V-1-7
	Operate Trail Party	3-V-1-8
1500	Occupy Assembly Area	3-I-1
	Prepare for Operations	3-I-2
	ARR	
<u>Day 2</u>		
0001	Occupy Assembly Area	3-I-1
	Prepare for Operations	3-I-2
0900	Mortar/Artillery Preparation of Objective	3-V-2-5
	Conduct Attack (Dry Fire)	3-V-1 thru 11
0930	Team Attack, Cross LD	3-V-2-4, 5
	Move to Objective (Dry Fire)	7, 10, 11
1000	Mounted Assault of Objective	3-V-2-13
	Consolidate	3-V-2-16
	Reorganize	3-V-2-17
1045	AAR of Dry Fire	
1100	Test Fire of Weapons	
1145	Withdraw to Assembly Area	
1215	Preparation for Operations	3-I-1, 2, 6
		3-V-1-1
1400	Same tasks as 0900-1045. The exercise will be conducted as a live-fire exercise.	
1630	AAR of Live-Fire Attack	
1645	Defend Battle Position	3-V-3-2
	Preparation of Battle Position	3-V-3-3
	React to Indirect Fire	3-V-3-5
	React to Direct Fire	3-V-3-6
	Enemy Probe, Attack	3-V-3-7
	Employ Supporting Fire	3-V-3-14
2100	Clear — Inspect all Weapons	
	Turn in Ammunition	
2130	AAR	
2200	Withdraw to Assembly Area	
<u>Day 3</u>		
0700	Preparation for Operations	3-I-1
	Inspection of Equipment (Final Shakedown)	3-I-6
1000	Conduct Tactical Roadmarch	3-V-1-3

Table 3



evaluators down to platoon level was critical to the success of the exercise. The evaluators provided immediate feedback in the form of after-action reviews, which were scheduled as training events during the exercise, as shown in Table 3.

The soldiers and leaders were given specific preliminary training in the skills they would need to execute the CALFEX. This preliminary training ensured that in the CALFEX itself the soldiers could apply acquired skills instead of being forced to learn and apply new skills at the same time.

Before the exercise itself, the soldiers were trained in the Soldier's Manual skills outlined in ARTEP 71-2 in the Individual/Collective Integration Matrix. The battalion placed special emphasis on individual and crew-served weapon proficiency.

Squad, platoon, and company ARTEP task training, which focused on the tasks selected for the CALFEX, was also conducted. Leader training emphasized the application of combined arms assets through the use of TEWTs, map exercises, and classroom training. The TEWTs were conducted on two levels. The first, conducted by the battalion commander, included the rifle company commanders, the armor company commander, the engineers, the U.S. Air Force forward air controller, and the Army air controllers. The second level of TEWTs, conducted by each rifle company commander with platoon and squad leaders from their companies and leaders from their attachments, consisted of multiple exercises. All of these TEWTs were conducted both on the ground and from the air. Dry runs of the CALFEX were conducted before the exercise and also as an event during the exercise itself.

The value of all this advance coordination, planning, and training became clear during the actual com-

bined arms exercise. Each company team followed the sequence of events shown in Table 3, and the controllers evaluated the ARTEP tasks as the events progressed.

Safety was a key factor, and all safety officer requirements were met by the chain of command during the exercise. A series of well-defined phase lines were used both for safety and for realism. The crossing of phase lines determined when the tactical air support would start and stop, when the indirect fire would be shifted, and when weapons would be loaded. Thus, the maneuver elements did not encounter any dangerous fire. Only the enemy force was simulated, and the units in the exercise accepted all tactical limitations in exchange for the training value to be derived from them.

At the conclusion of each major phase of the operation, an immediate after-action review was conducted for the leaders and soldiers at all levels. These reviews were positive and were conducted in such a way as to maintain the momentum of the problem; no "administrative halts" were called for the purpose of conducting reviews.

## LESSONS LEARNED

The CALFEX, as it was conducted by the 1st Battalion, 18th Infantry, proved to be a valuable exercise in terms of the amount of realistic training the soldiers and their leaders received. A number of valuable lessons were learned during the planning and execution of the exercise, and these lessons should be applied to all similar exercises:

- All agencies and assets from both the installation and the division must be properly coordinated and used to gain the full value from the many resources that must be committed to a CALFEX.

- The coordination of range construction and target emplacement must be centralized at division level.

- Qualified evaluators from outside a battalion would allow all of the battalion's soldiers to focus their full attention on their tactical assignments.

- Even more preliminary live-fire training would be helpful. (Ideally, squad and platoon live-fire exercises should be conducted before the CALFEX; they would help to instill into soldiers and leaders alike a greater degree of confidence and skill in their ability to handle weapons and systems in a live-fire situation.)

The battalion's CALFEX was expensive in terms of both manpower and material, but the training value derived from it made it well worth the cost. The chain of command of each company was clearly identified and validated. The soldiers gained an appreciation for the firepower available in a combined arms team, and the leaders enjoyed a rare opportunity to apply and control the key elements of a combined arms team in a realistic situation. This training experience clearly improved this battalion's ability to fight the AirLand Battle on the next battlefield.



**Captain E. J. Nusbaum**, when this article was prepared, was assigned to the 1st Battalion, 18th Infantry, at Fort Riley. He is a 1979 graduate of the U.S. Military Academy and recently completed the Infantry Officer Advanced Course.



**Captain John T. Robinson** was also assigned to the 1st Battalion, 18th Infantry, during the CALFEX discussed in the article. A graduate of Southern Illinois University and Eastern Kentucky University, he recently completed the CAS<sup>3</sup> course at Fort Leavenworth.



# ENLISTED CAREER NOTES



## BRANCH CHIEF'S COMMENTS

One of our goals at Infantry Branch is to match the requests and needs of the individual soldier to the mission requirements of the Army and to match them at the appropriate time. This calls for an extremely delicate balance of all three factors, and a balance that is ever changing. Every soldier must therefore become involved in his own professional development.

There are several things you can do to be involved:

First, send for a copy of your OMPF (it is free), and keep it up to date. And see that the soldiers who work for you send for theirs. No matter how good you are, it is your OMPF that represents you before school and promotion boards. The better you take care of it, the better it will take care of you.

Keep your preference statement up to date, too; it is considered before every assignment is made. And remember that people, not computers, manage your career. The CAP (Centralized Assignment Procedures) III System only nominates an individual; an assignment manager, working with a professional development NCO, actually makes the assignment instructions final.

Keep in touch with Infantry Branch. Make your needs and requirements known to your assignment manager and your professional development NCO. The best ways to do this are:

- Write to your branch with as many details as possible on your situation. Do not wait until you are within a month of DEROS or until you already have orders in hand.
- Call if you have a specific question or want to talk directly with an assignment manager or a profes-

sional development NCO.

- Visit MILPERCEN. We are available during normal duty hours for one-one-one interviews.

- Submit a DA Form 4187, Request for Personnel Action, and make sure you include all considerations in the "Remarks" section when requesting a specific assignment.

The Infantry School has published a very good guide to professional development — ST7-1, Infantryman Professional Development, dated April 1983. Copies of it should be requested the same way as other Infantry School publications. Read it and use it!

**LTC Ronald A. Green**

## TOLL-FREE NUMBER CHANGED

The 24-hour commercial toll-free telephone number given in INFANTRY, January-February 1985, page 43, has now changed. The number to call for personnel assistance is 1-800-255-ARMY.

This toll-free number is available for enlisted soldiers to use in calling the Information and Assistance Office at the Enlisted Personnel Management Directorate at MILPERCEN.

## RC/ROTC DUTY

One of the most challenging and rewarding assignments available to an Infantry NCO is a three-year tour of duty as an ROTC instructor or a Reserve Component (RC) Advisor. Assignment managers and professional development NCOs are often asked how a soldier is nominated and selected for assignment to one of these duty positions. Unfortunately, there seems to be a great deal of confusion about the selection process and even

more about the exact nature and scope of duties these NCOs perform.

Contrary to popular belief, neither type of duty is easy. The NCOs assigned to these positions are challenged daily by many complex responsibilities. And they put in some long hours. A Reserve Component advisor, for example, spends most of his duty days on the road to and from the reserve unit armories in his region. Many of his weekends, too, are tied up with unit meetings and training.

The duties of an RC NCO advisor include those of an operations NCO, a training NCO, an evaluation NCO, and an instructor. And only a few Regular Army NCOs are assigned to advise a fairly large number of units. An NCO charged with these responsibilities must therefore be the best the Regular Army has to offer.

NCOs assigned to ROTC duty must be of the same high caliber; they represent, to tomorrow's company and battalion commanders, the entire U.S. Army NCO corps.

The basic prerequisites for both kinds of position can be found in AR 614-200. Many soldiers meet these prerequisites, but only the best qualified of them will be chosen.

How do assignment officers decide which soldiers of those who volunteer are best qualified?

One of the chief determining factors is a soldier's previous assignments. The most desirable NCO for either ROTC or RC duty is the one who has had "recent or current" TO&E leadership experience as SSG, or platoon sergeant experience as SFC/PSG. ("Recent or current" is defined as being within the past two years.)

An NCO who has had extensive instructor experience or staff time during this period, or who is otherwise not performing in his primary MOS, does not have enough experience to per-



form satisfactorily in an ROTC or a Reserve Component environment. In other words, an NCO who has not performed in all facets of his PMOS in the past three years is definitely behind the NCO who has. After all, Reserve Component units need to be kept abreast of all changes to doctrine, tactics, and new equipment in the Army. And freshman platoon leaders in ROTC units have the same urgent need.

Rater and Indorser comments on Senior Enlisted Evaluation Reports (SEERS) are another important source of information upon which to base an assignment decision. An NCO with a consistent record of poor performance (relief for cause or failing APRTs, for example) will not be assigned to such a high visibility assignment.

Aside from a strong TO&E assignment background and favorable SEER comments, other factors also play an important role in assignment decisions.

To serve on ROTC or RC duty, an NCO must be eligible for such an assignment on the basis of his last date of return from overseas (DROS). If that date places him within eligibility guidelines for another overseas assignment, then he is not likely to be assigned to ROTC or RC duty instead. Ideally, any soldier who wants to volunteer for such an assignment should submit an application on DA 4187 six to eight months before his date of return from an overseas assignment.

A soldier with a large family is not assigned to this kind of duty, regardless of his qualifications. Seldom are such duty locations near a military installation and the family-related benefits it has to offer — such as commissaries, PX facilities, and medical facilities — and the lack of such benefits may place a financial burden on a large family. Few NCOs can perform at peak proficiency if they are preoccupied with such difficulties.

A volunteer for ROTC and RC duty must understand that these assignments are three-year, stabilized tours. Even if he later would like to get out of the assignment, he has to stay through

a complete tour, or until relieved for cause.

It is not our intention here to discourage NCOs from volunteering for ROTC or RC assignments. In fact, we hope to encourage outstanding soldiers to submit their volunteer applications. But they must be soldiers who feel that they have an obligation to both the Army and themselves to accept the challenge that such duties offer to the truly professional Infantryman.

Additional information is available from professional development NCOs here at the Infantry Branch.

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## **NO REELISTMENT BOARDS**

The Army, after reviewing the reenlistment program and recommendations from the field, has eliminated all reenlistment screening boards.

This decision does not mean that the Army has lowered its quality standards for first-term soldiers. The boards were important at a time when many first-term soldiers did not meet the prerequisites for an Army of excellence. Now, however, other factors — such as the reenlistment awards program and the higher quality of Army enlistees since 1980 — fill that need.

In order to ensure that all soldiers are treated equally, optional local boards will not be held.

More information is available from MILPERCEN — AUTOVAN 227-5341, or commercial (703) 697-5341.

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## **PROMOTION WORKSHEET**

The recently revised Promotion Point Worksheet (DA Form 3355) for promotion to sergeant and staff sergeant is scheduled for implementation in May and June. It emphasizes physical fitness, self-discipline, professional competence, and a commitment to self-improvement and achievement.

The commander's recommendation for promotion will be a part of the new

form; no separate correspondence will be required.

Duty performance points, awarded by the commander, have been increased from 150 to 200. Promotion board points have been decreased from 250 to 200.

Points for Skill Qualification Test (SQT) have increased from 150 to 200. (Soldiers will not earn points for SQT scores of 59 or below.)

Points for military and civilian education will be awarded in two separate categories. Soldiers can now earn up to 150 points for military education and up to 100 for civilian education. Formerly, the combination of military and civilian education was worth up to 200 points.

Points for military training, which consists of individual weapon qualification and the Annual Physical Readiness Test, have been added to the form. Military training will earn up to 100 points.

Time-in-service and time-in-grade, worth 100 points each on the old form, have been eliminated. Soldiers will not earn points for on-the-job experience or for high school completion.

Awards and decorations will earn 50 points on the new form, just as they did on the old one.

For more information, write to MILPERCEN, DAPC-MSP-E, 200 Stovall Street, Alexandria, VA 22332-0400, or call AUTOVON 221-9020.

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## **ENLISTED PREFERENCE STATEMENT**

The October 1984 UPDATE edition of AR 614-200, Selection of Enlisted Soldiers for Training, includes a new enlisted preference statement, DA Form 2635 (August 1984).

The new form contains items about the Married Army Couples Program, the Exceptional Family Member Program, and spouse employment considerations.

MILPOs should use the new form as soon as they exhaust their supplies of the March 1976 version.

For more information, write to MILPERCEN, DAPC-EPZ-H, 200 Stovall Street, Alexandria, VA 22332-0400, or call AUTOVON 221-8765.

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## OFFICER CANDIDATE SCHOOL

Sending qualified soldiers to the Officer Candidate School (OCS) at Fort Benning, Georgia, is essential in maintaining the strength of the officer corps. Every commander, staff officer, and NCO is responsible for identifying soldiers who meet the qualifications and then for encouraging them to apply.

To be eligible for OCS, a soldier must:

- Be a U.S. citizen with a favorable National Agency Check (NAC) or entrance NAC.

- Be an enlisted soldier or warrant officer on active duty. Enlisted soldiers must have completed Advanced Individual Training.

- Pass the Army Physical Readiness Test.

- Meet the height and weight standards in AR 600-9, The Army Weight Control Program.

- Have a minimum GT score of 110 if tested on or before 31 December 1975, or after 1 October 1980. Soldiers who were tested between 1 January 1976 and 30 September 1980 who have not taken a retest must achieve a GT score of 115 or higher. All applicants must also score 90 or higher on the Officer Selection Battery, Subtest 2.

- Have completed at least 60 semester hours (90 quarter hours) of college study, except for a Medal of Honor or Distinguished Service Cross recipient.

- Achieve a score of 80 or higher on the English Comprehension Level Test if the applicant's primary language is other than English.

- Be of good moral character.

- Have no convictions by civil or military courts, except for minor traffic violations with a fine of less than \$100. An applicant must not have been adjudged a juvenile offender.

- Have not been previously disenrolled from OCS.

- Be at least 18 and less than 30 years old at the time of enrollment.

- Accept a three-year service obligation upon graduation.

- Meet the standards listed in AR 40-501 (Standards of Medical Fitness), Chapter 2 and Paragraph 7-19.

Applicants for OCS who are assigned overseas will not be permitted to make a PCS move to attend the course until they have completed at least five-sixths of a normal tour. Tour assignments of less than 24 months must be completed before a PCS move.

Soldiers should contact their MILPOs to find out whether they are eligible to apply under AR 351-5, U.S. Army Officer Candidate School.

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## NO HANDS-ON TASKS

Soldiers who appear before promotion boards for sergeant or staff sergeant will not be required to perform any hands-on tasks. The boards will limit themselves to a question-and-answer format.

In addition, AR 600-200, Chapter 7, prohibits units from adding their own promotion criteria to that required by the regulation. Pre-screening boards to determine eligibility for promotion are also prohibited. The only authorized board is the actual promotion board that determines whether a soldier is to be added to a recommended list.

The soldiers who appear before a promotion board should be fully trained in their MOSs before they are recommended. A commander's recommendation for promotion means that the soldier is fully trained and MOS-qualified, and that the soldier would be promoted immediately if the commander had the authority.

In determining whether a soldier is qualified to hold the next higher rank, a commander can use duty performance, the Common Task Test, the Skill Qualification Test, the Army

Physical Readiness Test, and weapon qualification. Promotion board members can use results of these evaluations when comparing soldiers who are competing for promotion.

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## WARRANT OFFICER SELECTION

Local selection boards no longer screen applications for warrant officer appointments. Instead, the applications are processed through the individual's chain of command to the next higher headquarters. Then the installation or area commander forwards it with his recommendations to MILPERCEN.

Anyone interested in applying can now refer to DA Circular 601-84-4, Warrant Officer Procurement — FY 85, for guidance.

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## RC WARRANT OFFICERS NEEDED IN SHORTAGE MOSs

There are plenty of "shortage" MOS warrant officer positions to be filled, both in Army Reserve units and in the Individual Ready Reserve (IRR).

Enlisted Army Reservists who are interested and eligible are invited to apply for a warrant officer appointment. There are two major references to be used in applying: AR 135-100, Appointment of Commissioned and Warrant Officers of the Army, and RCPAC Pamphlet 135-100, Information Pamphlet, The Direct Appointment Program for Procurement of Commissioned Officers, United States Army Reserve.

Unit members can obtain information and application packets from their respective Army headquarters and should submit applications to those same headquarters through their unit commanders.

IRR members can obtain information and application packets from USARPERCEN, ATTN: DARC-AD, 9700 Page Blvd., St. Louis, MO 63132, and can apply directly.



# OFFICERS CAREER NOTES



## OFFICER RECORDS

Each year as selection boards prepare to convene, it becomes apparent that many officers are still not sure what should be in their records or how it should get there. The following is therefore intended to help you understand your records (whether you're facing a selection board or not) and what you need to do to keep them up to date.

Your records include the following:

- Field 201 File — Military Personnel Record Jacket (MPRJ). Your MPRJ is the local file you hand-carry on each PCS move. It is maintained by your local MILPO for use by the unit personnel office.

- Career Management Individual File (CMIF). Your CMIF (or branch file) contains a record of all your hard-copy OERs and AERs and your past assignment history. Although it does contain portions of your official file, such as a copy of your performance microfiche and a copy of your Officer Record Brief (ORB), it is not an official document. The CMIF is maintained by Infantry Branch as an operating document and is used for assignment actions and professional development.

- Official Military Personnel File (OMPF). Your OMPF contains your official records in microfiche form. This file, maintained in MILPERCEN by the Records and Services Branch of the Management Support Division, is the file selection boards use.

The microfiche record of your OMPF is in three parts: Performance (P), Service (S), and Restricted (R). Briefly, the contents and the use of these parts are as shown on the accompanying chart.

Selection boards review and consider the following items:

- A copy of your OMPF performance fiche.
- A copy of your ORB.
- Your hard-copy DA photo.
- Any recently received official items that have not yet been put on the performance fiche of your OMPF.
- Any letters addressed to the President of the Board.

You need not make a special trip to MILPERCEN to check your OMPF. You can obtain a free copy of it and of your most current ORB by writing to DA, MILPERCEN, ATTN: DAPC-MSR-S; 200 Stovall Street, Alexandria, VA 22332-0400.

You may not see your latest OER on your copy of the performance fiche, because it normally takes anywhere from four to six months for an OER to be fully processed and included. If an OER is received for processing as of the convening date of a selection board, it is included in your board folder and viewed as a hard-copy document. OERs that have an end-date of 61 days or more before the convening date of the board are regarded as mandatory

reports and are considered even if they arrive after the convening date.

To make corrections to your records, you are encouraged to visit your MILPO and submit changes through your personnel officers. Make sure you have the appropriate documents with you to substantiate any changes. You may give a copy of any missing documents to a records specialist at your servicing MILPO.

Examples of authorized documents are:

- Army branch service school certificates (U.S. Army Infantry School, for example).

- Orders and citations for individual awards (excluding badges and tabs).

- Certificates of achievement.

- Letters of appreciation or commendation. (Your name must appear in the basic correspondence and the letter must state that it is to be filed in your OMPF.)

- Active duty report, DD Form 220 (USAR officers only).

Since your ORB is your resume, it is in your best interest to see that it is as complete as possible. Several items in the ORB that you should be

FICHE	CONTENTS	USES
P	Evaluation reports, awards, decorations, letters of commendation, Article 15s, courts-martial, letters of reprimand, course completion, transcripts, etc.	Selection boards, career managers, Army Board for Correction of Military Records (ABCMR), other personnel actions.
S	Accession package, promotion orders, extension of service agreements, RA appointments, and other data required for service computation.	Career managers, ABCMR, service computation. Not normally seen by selection boards.
R	Denied OER appeals, courts-martial with no finding of guilty, wholly set aside courts-martial or Article 15s, ABCMR case documents. (Not all OMPF's will have an "R" fiche.)	Individual concerned. ABCMR. Not released to selection boards or other agencies without special permission or written request from individual concerned.

sure to keep up to date are physical (height and weight) data, civilian education level and degrees, military education level, assignment history, and awards and decorations.

Finally, don't forget your official photograph. New photos are required within 60 days of promotion to first lieutenant, upon promotion to every subsequent rank, and every four years. When you go to have your photo taken, make sure your uniform fits well and is well pressed; that you don't need a haircut or a mustache trim; and that your uniform does not violate the specific instructions outlined in AR 640-30. (Wearing regimental infantry brass, infantry blue cords, and leadership tabs, for example, are not prescribed for official photos.) Then go a step further and ask your photo facility to show you a copy of the photo before forwarding it to MILPERCEN.

If you want to visit MILPERCEN to review your records, you should call Infantry Branch 72 hours before your visit so that your official file can be made available to you. (The number to call is AUTOVON 221-0207, or commercial 202/325-0207.) No appointment is necessary for you to visit Infantry Branch or to review your CMIF.

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## POST-OAC ASSIGNMENTS

Officers who attend advanced courses this year should know by their 10th week of training not only where they are going next but what their new jobs will be. Previously, officers learned of their projected assignment locations between two and four months before arriving for the course but did not know the type of unit they would be going to or their duty position.

Because of the recent revision of officer advanced courses (OACs), it is important that an officer's next assignment be projected earlier than in the past.

When the schools begin to add branch-specific modules to the ad-

vanced courses, some officers will stay in school longer than others. The newly revised course is 20 weeks long, followed by from one to six weeks of intensive, job-specific, follow-on training afterward.

Under the new policy, about six months before an advanced course begins, the officers scheduled to attend will be asked to tell the Army where they would like to be assigned after the course. Then, about two months before the course begins, assignment managers will write to the officers about their tentative assignments.

The branch assignment managers who visit within the first two weeks of each class will talk with the officers and make any necessary changes to their original assignments.

Shortly thereafter, requests for orders will be sent to gaining commands, which will decide the type of unit and the duty position for each officer. The schools will then decide what follow-on training each officer will need, if any, to do his new job.

For more information, officers should visit their local military personnel offices or contact MILPERCEN, ATTN: DAPC-OPD-M, 200 Stovall Street, Alexandria, VA 22332-0400. The telephone numbers are AUTOVON 221-7883 or 7884; commercial 202/325-7883 or 7884.

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## ORB POCKET GUIDE

A new pocket-sized guide to the Officer Record Brief (ORB) has been sent to all Army officers at their home addresses. It is DA Pamphlet 640-1, The Officer's Guide to the Officer Record Brief.

The guide explains the ORB and its importance, and it tells what each data element on it means and how to correct any errors that may appear on it. The pamphlet is important to an officer because his career often depends on his understanding of his ORB and on how well he keeps it up to date.

The guide has also been dis-

tributed in units down to battalion level. Officers who have not received it by now should see their publications control officers about getting a copy, or contact MILPERCEN, ATTN: DAPC-OPZ-IM, 200 Stovall Street, Alexandria, VA 22332-0400; AUTOVON 221-8140.

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## NEW WARRANT OFFICER MOS

MOS 750A, Operations Research/Systems Analysis, is being developed for Army warrant officers. Those who are selected for this MOS may receive up to 18 months (24 months in exceptional cases) of full-time graduate education paid for by the Army.

The new program will expand the Army's ability to provide its decision-makers with highly skilled analytical support. Operations research analysts gather data and design mathematical models and simulations of military operations. They use these models and simulations to conduct analyses of costs and resources.

To be selected for the new MOS, a warrant officer must hold a bachelor or master of science degree and must have an exemplary record.

Applications should be submitted as outlined in AR 621-1, paragraph 3-3. Additional information can be obtained from the Warrant Officer Professional Development Branch at MILPERCEN: AUTOVON 221-7843.

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## USAR OERS

Commissioned and warrant officers have a personal responsibility to see that officer evaluation reports (OERs) are prepared on them for a period of duty and forwarded to HQ, ARPERCEN within 90 days of the closing date of the report.

When making inquiries about reports, rated officers should be aware of the date the report was dispatched to ARPERCEN and whether or not the report was returned to the MUSARC or agency for correction.



# BOOK REVIEWS



The United States Government Printing Office again has told us about a number of its more recent publications that military professionals should find interesting and useful. Among those publications are:

- **U.S. ARMY CENTER OF MILITARY HISTORY PUBLICATIONS**, Fall/Winter, 1984-85, CMH PUB 105-1. This partially annotated catalog lists CMH's forthcoming, newly published, and still current titles. Titles are grouped by major wars or by the series in which they fall. The catalog, free for the asking, is designed for use by the military professional as well as by the academic community and the general public.

- **THE FUTURE OF CONFLICT**. 1979 Edition. 198 Pages. \$5.50, Paperbound. S/N 008-020-00793-5. This book looks at the future of conflict and explores from a variety of viewpoints the inherent risks to the United States during the next 20 years. The book discusses arms control, the prospects for conflict, the new faces of conflict, and modern societies.

- **COMPETING GLOBAL DEMANDS FOR U.S. ARMY FORCES**. 1984 Edition. 136 Pages. \$4.00, Paperbound. S/N 008-020-00977-6. This study looks at current plans for deploying the United States Army and other land combat forces throughout the world and suggests options for deploying only limited forces that might be better able to meet various contingencies.

- **GERMAN ARMORED TRAFFIC CONTROL DURING THE RUSSIAN CAMPAIGN**. 1984 Reprint. 52 Pages. \$2.25, Paperbound. S/N 008-020-00989-0. A booklet titled "The March of Motorized Troops," published by the German Armored School in the fall of 1941, was used as a reference source for this study. In actual practice during the course of the

war, the troops adapted traffic control to the various terrain, weather, and road conditions they found in the different theaters of operation. This study describes and develops those principles that were proved valid and worthy of application during combat operations in Russia.

All orders to the Government Printing Office must be accompanied by payment in the form of check or money order payable to the Superintendent of Documents. Payment may also be made by VISA or MasterCard number, with the card's expiration date being furnished.

We also continue to receive a large number of publications for review from publishing houses throughout the world. Here are a number of such publications we found most interesting:

- **ORDER OF BATTLE, U.S. ARMY, WORLD WAR II**. By Shelby L. Stanton (Presidio Press, 1984. 621 Pages. \$60.00). Several years ago Shelby Stanton published his Vietnam 'order of battle' book, which has been accorded rave reviews by both military historians and military history buffs. This new order of battle book deserves the same treatment; it is an outstanding example of painstaking digging for facts and a tribute to Stanton's desire to keep alive the U.S. Army's organizational history. Perhaps one point should be emphasized: Stanton includes information only on the Army's World War II infantry, armor, tank destroyer, cavalry, field artillery, coast artillery, antiaircraft artillery, and engineer units, each of which is treated in a separate chapter. Stanton does include, however, a section of four-color unit patches; a discussion of the Army's World War II organizational changes; four fact-filled appendixes; an erratum page; and a discussion of his principal

sources.

- **SOLDIER TALK**. By Frank Hailey (D. Irving and Company, 1982. 73 Pages. \$5.95, Softbound). Frank Hailey is a retired Army first sergeant who became concerned that "the jargon of the 'old soldier' is seldom heard in today's Army" and decided to do something about it. This book is the result. Hailey has refrained from including some of the more filthy words, terms, and phrases — a wise decision — and has "laundered" others. What is left is good soldier stuff that military professionals of all ranks will appreciate.

- **AIRBORNE ALBUM: VOLUME I, PARACHUTE TEST PLATOON TO NORMANDY**. By John C. Andrews (Phillips Publications, 1981. 50 Pages. \$6.95, Softbound). This is a fine pictorial reference publication; it contains more than 100 photographs (some quite rare) and 40 line drawings. The narrative portions are quite short, but complete. Instead, the photo captions are used to tell the story of the U.S. airborne forces from their beginnings to June 1944. Brief sections also deal with the Marine Corps' jump units; the 1st Special Service Force; and OSS (Office of Strategic Services) operational groups.

- **THE IMAGE OF WAR, 1861-1865: VOLUME VII, THE END OF AN ERA**. Edited by William C. Davis (Doubleday, 1984. 496 Pages. \$39.95). This is the sixth and final volume in a truly monumental photographic history of our Civil War. In this volume, the Confederacy is beaten on land and its navy driven from the seas. The Union Army finally has become a formidable fighting force with professional command and logistical supporting structures. The South can do little to stop the Northern avalanche — Mobile falls; Sher-

man marches from Atlanta to the sea and then turns north into the Carolinas; Lee's lines at Petersburg are broken and he surrenders the remnants of his army to Grant early in April 1865; and the last substantial Confederate force left in the field, Kirby Smith's Trans-Mississippi army, surrenders in May. The editor, William Davis, ends the series with a splendid chapter titled "The 'Late Unpleasantness.' "

• **A PHOTO HISTORY OF TANKS IN TWO WORLD WARS.** By George Forty (Sterling, 1984. 192 Pages. \$16.95). More than 500 photographs are used in this book to trace — through their accompanying captions — the evolution of the modern tank from the "No. 1 Lincoln Machine" through World War II's Panthers, Shermans, Churchills, and T34s. This is an excellent reference book that has been put together by a most knowledgeable tank historian.

• **WORLD TANKS AND RECONNAISSANCE VEHICLES SINCE 1945.** By Noel Ayliffe-Jones (Hippocrene Books, 1984. 144 Pages. \$19.95). This book makes an excellent companion to George Forty's book, mentioned above. Although this one has more narrative, its numerous photographs are also used to good advantage to trace the evolution of the

world's tanks and reconnaissance vehicles from the end of World War II to the present. Other sections of the book are used to discuss armor, firepower, the threat to armored vehicles by guided weapons, and the future of the armored fighting vehicle.

• **SMALL ARMS TODAY: LATEST REPORTS ON THE WORLD'S WEAPONS AND AMMUNITION.** By Edward C. Ezell (Stackpole Books, 1984. 256 Pages. \$18.95, Softbound). The author, a recognized authority on small arms, takes his reader on a tour of the world in this book to discuss each country's use of rifles, handguns, machineguns, submachineguns, and special-purpose weapons. He also includes a chapter on developments in small arms ammunition since 1939. He does not provide technical data — leaving that for the publisher's more detailed **SMALL ARMS OF THE WORLD** — and furnishes only information that someone can use to determine which weapons the world's armies are using today. Ezell's approach to his subject is most interesting, and it certainly is informative.

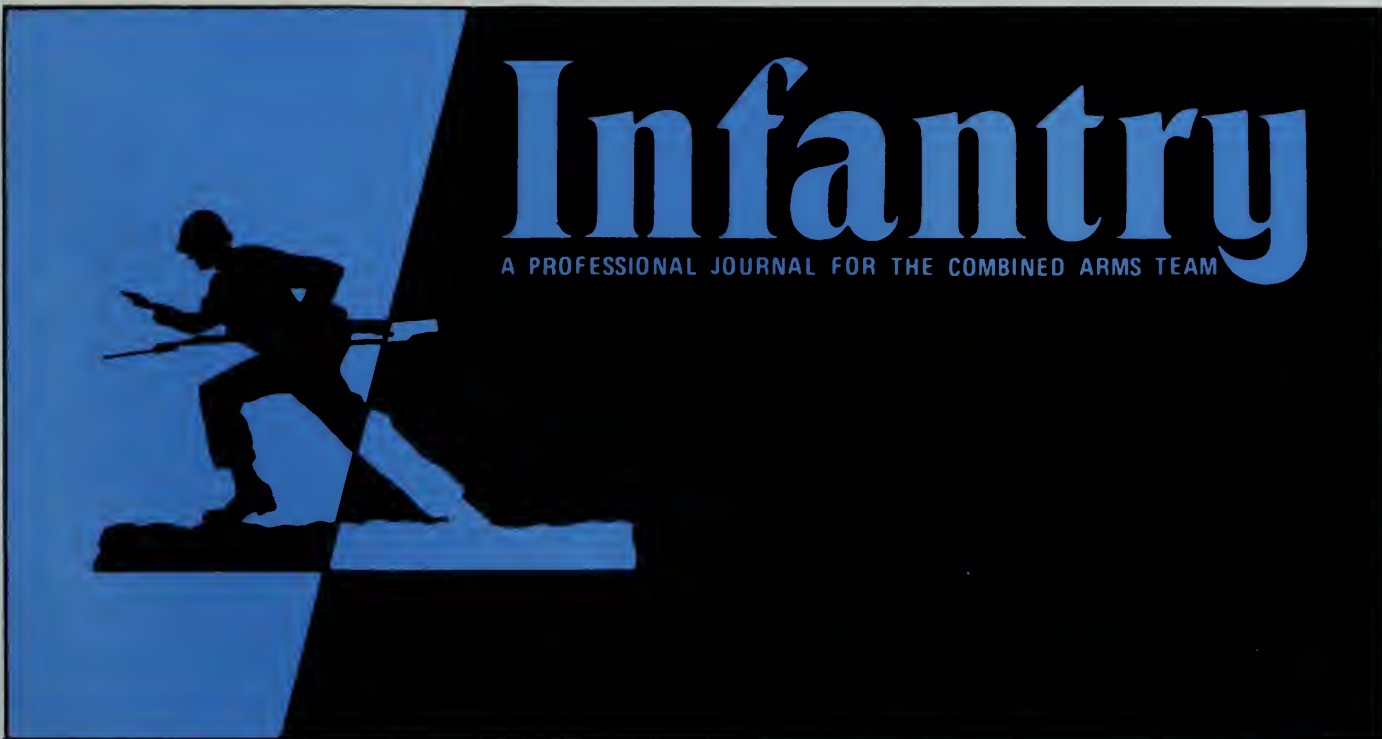
In addition to these publications, we have also received a number of others we thought you might be interested in:

**THE BATTLE FOR HUE.** By Keith W. Nolan (Presidio Press, 1983. 201 Pages. \$14.95). Reviewed by Dr. Mike Fisher, University of Kansas.

Apologists for the conduct of the American foot soldier in the Vietnam War should avoid reading this book, for it captures the pride, fury, and elan that characterized American infantry units in many of the war's most violent intervals.

One such chapter began to unfold on the night of 31 January 1968 when 11 battalions of North Vietnamese regular soldiers infiltrated the sacred city of Hue. At dawn on the second day of the Tet holiday period, a Viet Cong flag was draped over Hue's Palace of Peace, and the communists occupied much of the city. U.S. Army and Marine units were south of the city. A command group from the South Vietnamese Army defended part of the Citadel, which formed the city's inner defense.

Against this background, the 20-year-old Nolan, son of a Marine Corps officer, recounts the month-long battle for Hue. He weaves into his narrative 34 interviews with Marine veterans of the battle, and it is through these accounts that the reader can follow an understrength Marine battalion north, up Highway One, and across the Perfume River where two





more Marine battalions join to retake Hue.

Veterans again will feel the excitement of combat as Nolan's scenes tramp by in steady cadence, providing a litany of the courage and resolve that all infantry leaders may well hope to emulate in future combat. Nolan captures the ferocity and resolve of the combatants in a battle in which the North Vietnamese sustained 5,000 dead. The South Vietnamese estimated that the fighting cost them 400 dead, while the Marines counted 147 killed and more than 800 wounded. An additional 5,000 civilians died at the hands of the communists. The 30-day battle destroyed 40 percent of the city.

The author's youth and enthusiasm provide a stylistic strength characterized by the eye witness accounts that enliven the narrative. But that strength also flaws his book. His Marine bias weakens the book's objectivity. The book needed more balance, careful editing, and historical annotation.

Nevertheless, Nolan's book serves as a primer for young infantry officers seeking a description of close combat, for veteran commanders seeking to review the tactics used by squads and platoons to attack fortified positions,

and for civilians seeking a picture of American soldiers slugging it out with their North Vietnamese counterparts. And history buffs can profit from a chapter of the war that merits retelling. As Nolan writes, "'Several men who had shrapnel in legs and arms hobbled around and begged me not to medevac them,' a veteran Marine colonel remembered, recounting with pride how his wounded, ragged Marines returned to the streets of Hue. A sense of pride, comradeship and revenge welded those units together in what the Marines called 'pay back time.'"

"We were better," a Marine commander remarked nearly two decades later. Thousands of others who commanded American infantrymen in Vietnam would second the remark.

## RECENT AND RECOMMENDED

**THE ORIGINS OF THE COLD WAR IN ASIA.** By Y. Nagai and A. Iriye. Columbia University Press, 1977. 448 Pages. \$20.00.

**YANK: THE STORY OF WORLD WAR II AS WRITTEN BY THE SOLDIERS.** By the Editors of YANK, the Army Weekly. Greenwich House, 1984. 264 Pages.

**JUNE 1944.** By H.P. Willmott. Sterling, 1984. 224 Pages. \$16.95.

**HISTORY AND WAR.** By Theodore Ropp. Hamburg Press. 1984. 81 Pages. \$9.00, Soft-bound.

**PERILOUS MISSIONS.** By William M. Leary. University of Alabama Press, 1984. 281 Pages. \$22.50.

**CATALOG R-4, U.S. GOVERNMENT BOOKS.** U.S. Superintendent of Documents, 1984. 56 Pages. Free for the asking.

**OPTIONS OF COMMAND.** By Colonel Trevor N. Dupuy. Hippocrene Books, 1984. 303 Pages. \$19.95.

**BUILDING THE WOODEN FIGHTING SHIP.** By James Moore and James Dodd. Facts on File, 1984. 128 Pages. \$19.95.

**COUNTRIES OF THE WORLD AND THEIR LEADERS YEARBOOK 1985.** Two Volumes. Gale Research Company, 1984. 1,546 Pages. \$95.00.

**'44: IN COMBAT FROM NORMANDY TO THE ARDENNES.** By Charles Whiting. Stein and Day, 1985. 219 Pages. \$18.95.

**ON TO THE YALU.** By Edwin P. Hoyt. Stein and Day, 1985. 297 Pages. \$19.95.

**THE SPANISH WAR: AN AMERICAN EPIC, 1898.** By G.J.A. O'Toole. W.W. Norton, 1984. 447 Pages. \$19.95.

**ARMY UNIFORMS OF WORLD WAR I.** By Andrew Mollo. A 1984 Reprint. Sterling, 1984. 219 Pages. \$9.95.

**WAR DIARIES: POLITICS AND WAR IN THE MEDITERRANEAN, 1943-1945.** By Harold Macmillan. St. Martin's Press, 1984. \$29.95.

**THE BRITISH INFANTRY, 1660-1945: THE EVOLUTION OF A FIGHTING FORCE.** By Frederick Myatt. Sterling, 1984. \$12.95.

**HORROCKS.** By Philip Warner. David and Charles, 1984. 195 Pages. \$19.95.

**FIGHTING A LONG NUCLEAR WAR.** 1984 Edition. U.S. Superintendent of Documents, 76 Pages. S/N 008-020-00993-8. \$2.50, Paperback.

**BATTLES IN THE MONSOON: CAMPAIGNING IN THE CENTRAL HIGHLANDS, VIETNAM, SUMMER 1966.** By S.L.A. Marshall. Originally published in 1966. Battery Press, 1984. 408 Pages. \$18.95.

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# From The Editor

## **1985 INFANTRY CONFERENCE**

As we mentioned in our last issue, the 1985 Infantry Conference will be held at Fort Benning during the period 23-25 April 1985. All members of the Infantry Association are invited to attend. Many of the sessions this year will be open to all attendees, and there will be enough space at the open sessions to accommodate all who want to attend.

Infantry Association members who would like to attend the Conference are asked to contact the editor of *INFANTRY* as soon as possible. They will be sent copies of the formal agenda and information on the availability of housing, as well as other information of a general nature.

## ***INFANTRY IN VIETNAM* NOW IN PAPERBACK**

We have just received a copy, in paperback format, of our 1967 publication *INFANTRY IN VIETNAM*. (See *INFANTRY*, November-December 1967, inside back cover, and *INFANTRY*, November-December 1982, page 48.) It is a Jove Book, reprinted by the Berkley Publishing Group from the Battery Press hard-cover reprint, which appeared in 1982. The selling price on the cover is \$3.50. We assume that it will be placed in local bookstores around the country.

## **DISTRIBUTION**

We send free copies of *INFANTRY* to all infantry and infantry-related units, both Active Army and Reserve Component. Each infantry company and each infantry battalion headquarters, for example, is sent three copies. Yet we often hear people returning from various units say that they have never seen the magazine. If your company or battalion headquarters is not receiving its copies, please let us know. (And you might also check the mail distribution at your end!)

On the other hand, it is apparent that in some units the copies do arrive on time but that few people ever see them. We ask commanders, therefore, to make it clear that the unit's copies of *INFANTRY* Magazine are not just for the first three people who walk in. They're supposed to be shared and used by all, with one copy perhaps kept for reference. The Army pays for these copies! Those three people who usually take them should start paying for their own.

## **OUTSIDE BACK COVER**

Going Overseas in the New Georgias, South Pacific, 1943.  
By Howard Cook. (U.S. Army Art Collection)







D102-83:115/3



MAY-JUNE 1985

# Infantry

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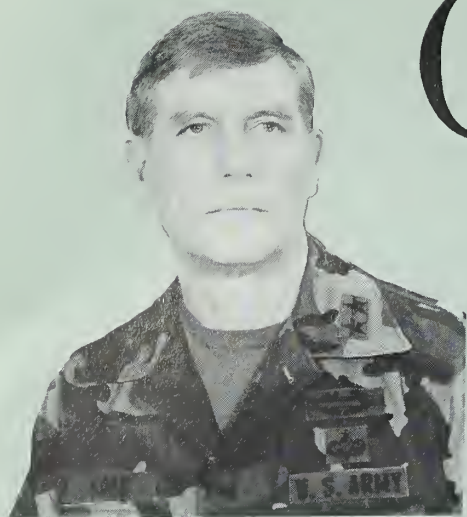
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# Commandant's NOTE



**Major General John W. Foss**

Chief of Infantry



In my note in the September-October 1984 issue of *INFANTRY*, I talked about one of the most exciting training challenges facing the TRADOC community — that of training our new light infantry force. Now I want to bring you up to date on the most recent light infantry happenings.

As most infantrymen know by now, our new light infantry units are unique in their organization, equipment, and training. They are “maneuver-based” rather than “firepower-based” units. In other words, by avoiding an enemy’s reconnaissance, security, and engagement areas, they strike him when and where he least expects it. Light infantry operations are masked and take full advantage of darkness, limited visibility, foul weather, and restrictive terrain. Employing special tactics and “how to” techniques that emphasize stealth, light infantry uses the indirect approach to strike the enemy where his combat power is weakest and where we can concentrate ours.

Field Circular 7-15, Light Infantry Squad and Platoon Operations and ARTEP, Field Circular 7-14, Light Infantry Company Operations and ARTEP, and Field Circular 7-13, Light Infantry Battalion and Brigade Operations and ARTEP, describe the new tactics and techniques light infantry units use to accomplish their missions. Here, I would re-emphasize the fact that while the missions light infantry units will be called on to conduct are the same ones all infantry units conduct (deliberate attack, defend in sector, etc.) the tactics and techniques employed are entirely different. These units are not just lighter infantry doing the same things the same way. For light infantry units, therefore, we have developed “how to” techniques with names such as “stalking attack,” “baited attack,” “seamless web,” and “elastic defense.”

We did not develop these names — these techniques — simply because we had developed a new type of infantry. In reality, light infantry and its corresponding tactics are as old as the foot soldier himself. We have solid historical precedents for implementing those tactics that allow us to use the indirect approach to destroy the enemy or to break his will to fight. In many cases what we are doing isn’t new, it’s just a “re-bluing” of the old. It is important, however, that infantrymen recognize the difference in tactics and techniques, and the descriptive new terms help to emphasize that difference.

Light infantry is capable of deploying rapidly anywhere in the world to assist in defusing situations before hostilities can break out. Some infantrymen argue, however, that because of their smaller size light infantry units lack combat power and mobility for such a mission. But these terms are relative. Combat power and mobility are related to the factors of METT-T, and light in-

fantry units fight where their relative combat power and mobility is greater than the enemy’s. Light infantry fights other light infantry anywhere, anytime. Light infantry units using maneuver (fire and movement) on close terrain close with and destroy enemy forces, including mechanized and armor opponents. With these considerations in mind, we can say that our new light infantry is a powerful force on the low-intensity battlefield and that it has significant utility on the mid-intensity battlefield as well. But all must recognize that if employed in the open against a heavy armored force, it will have difficulty executing the mission successfully.

Almost daily, new and exciting changes are taking place in our light infantry force. The platoon, company, and battalion circulars mentioned above are in the field.

The Light Leaders Course, conducted by the Ranger Department, is teaching light infantry leaders what to do, how to do it, and how to teach it. Thus far the leaders from seven battalions have graduated from the course, and we now expect to conduct at least 18 classes during Fiscal Year 1986.

Perhaps the most exciting thing that is now taking place is the light infantry certification process. The 7th Infantry Division is providing input from the field through squad, platoon, company, and battalion ARTEPs. This process will determine whether the light infantry division organization, doctrine, and equipment meet the need to accomplish light infantry missions in the manner we intended. The Infantry School is sending subject matter experts to observe the process. Based on the certification results, and if these show that such action is necessary, the School will improve the light infantry organization, doctrine, and institutional training to prepare the light infantry divisions to carry out their assigned combat missions.

As I have said on other occasions, in today’s Army there are several infantries — and light infantry is one of them — but there is only one overall Infantry. The light infantry’s basic combat mission is the same one all other infantry units have: to get to the battlefield and close with the enemy by fire and movement to destroy or capture him, or to repel his attack by fire, close combat, and counterattack.

But because the manner in which our light infantry units will carry out their mission is so different, we have developed a new training strategy for them. And in that training strategy the main thrust of our continuing effort is quite clear — to build highly proficient units made up of leaders and soldiers who are physically and mentally tough; units that are oriented toward low- to mid-intensity conflicts, and units that have the capability to go anywhere and win.

# INFANTRY LETTERS



## SOVIET MOTIVATIONS

Captain David F. McDermott's article "The Invasion of Afghanistan" (INFANTRY, January-February 1985, page 19) is an excellent one. On the subject of the Soviet Union's motivation for the invasion, however, I would like to offer some more information.

It is common knowledge that the Soviet Union has had a long history of involvement in Afghanistan, and that it had a firm grip on the armed forces of Afghanistan at the time of the invasion, but let's review a few facts.

First, the Soviet Union had no apparent reason to fear the spread of Islamic fundamentalist activities within its borders. Although there were a few problems that would cause local flare-ups in the Central Asian Theater, they were not enough to promote an invasion of Afghanistan. Invading for that reason would only intensify the resolve of the Moslem population. If the Soviets felt that way, why should they take on any more territory with a predominately Moslem population? If the Central Region was under threat of revolution from fundamentalist Moslems, I doubt that the invasion would have helped quiet it.

It has been known for a long time that the major supporter of trouble in the Central Region of Soviet territories was Iran, not Afghanistan. So if the Soviets feared such influence, why didn't they invade Iran instead?

Judging from the Soviets' past foreign policy, the standard paranoid viewpoint of most Soviet high level planners, and a review of the military value of having Afghanistan as a land mass buffer for the mother land, another motivation is more likely: The Soviets may have invaded Afghanistan because they believed the United States would take military ac-

tion against Iran to recover the Americans being held hostage. The Soviet analysis of U.S. military movements and the level of concern of the Carter administration may have indicated to Soviet planners that an invasion was about to occur — an invasion that would have put an unfriendly force on their southern border.

The Soviets' view that the U.S. would invade Iran supported their belief that the U.S. would use the hostages as an excuse to control the oil fields of Iran and shipping in the Persian Gulf, a proclaimed sphere of interest.

TRAVIS R. YORK  
Sarasota, Florida

## PT IN HHB

Commanding the Headquarters and Headquarters Battery, Division Artillery, 25th Infantry Division is a rather complex task. Even more complex is finding a physical training program to prepare the many types of soldiers (male, female, private to colonel, 18 to 50 in age) for a Silver Streamer test.

Needless to say, I was very interested in the method Lieutenant Colonel Lawrence B. Goodwin, Jr., presented in the September-October 1984 issue of INFANTRY (page 3). His ideas were implemented in my battery in the beginning of October. The battery PT leaders were allowed to choose any of the three conditioning drills. Interspersed in the exercises were three

sets of the four-count pushup. The three sets consisted of five, six, and seven repetitions.

After stretching and forming into three ability groups, the battery ran two miles. Then we did 12 repetitions to provide the "overload" needed, as outlined in the news item.

The previous Silver Streamer preparatory program consisted of a "crash" one-month period in which the battery went from PT three times a week to PT five times a week. I considered this non-productive and demoralizing to the soldiers.

This new method paid off in January when 155 out of 162 people tested passed. The unit averaged 235 points on the test. Out of the seven failures, four were because of pushups. (Two of the four had recently arrived from CONUS.)

I am confident that over a long period of time, Colonel Goodwin's method will pay even higher dividends. We will see in June. My soldiers are proud of their achievement and look forward to scoring higher next time.

A big Redleg thanks to you!

BRIAN M. LUDERA  
CPT, Field Artillery  
Scofield Barracks, Hawaii

## OBSERVATIONS FROM THE NTC

Having served at the National Training Center (NTC) for a year and a half, I would like to offer some observations.

In fourteen battalion rotations through the NTC, I saw two company commanders who really knew their stuff. I saw one who, if I had had the power, would have been fired outright, and four others who clearly did not have any idea of what they should

We welcome letters from our readers and print as many of them as we can. Sometimes it takes a while before we find room for them. But keep writing on topics of interest to our readers, and we'll do our best to get your letters in, sooner or later.



have been doing. The rest were good officers struggling with varying degrees of success to tie everything together.

I reached the point after about six months where, after a brief introduction to the commander and the first sergeant in their company area, I could tell within five minutes how that company was going to perform. I can't identify what I looked for or what I saw, but an impression jumped out and announced itself with a remarkably accurate picture of the unit's strengths and weaknesses.

I never saw a truly bad platoon leader. I saw lost, exhausted, confused, and green ones, but never a bad one. They did the best they knew how with what they knew, which was typically very little, judging from the woefully inadequate commanders' guidance. On at least two occasions a commander specifically pointed out a lieutenant and advised me to have patience with him since he was having real trouble. In both cases, that lieutenant's leadership and tactical ability turned out to be the saving grace of the company.

I have mixed feelings about NCOs. In nearly every case where an NCO was in charge of a platoon, I could count on that platoon to do well. Under a lieutenant, however, the results varied dramatically, although a platoon sergeant was always on station.

When I talked to those platoon sergeants, they would invariably preface their remarks with "that lieutenant" or "the lieutenant" and only rarely "my lieutenant." "That lieutenant" clearly does not have anywhere near the experience of "that platoon sergeant." There are two people responsible for training a lieutenant. One is the company commander, but the primary trainer is the platoon sergeant. This is a key disconnect and one that needs to be addressed by the NCO corps.

One way to resolve this problem is this: For the first 90 days after a new lieutenant comes on board, the platoon sergeant takes the hits for any shortcomings. After that, the lieu-

tenant takes them. Remember, lieutenants grow up to be captains, colonels, and generals, and it is important that these brash young officers learn to do it right.

The troops themselves continue to be magnificent. I have seen too many PFCs grab a team and do exactly the right thing at a critical point in the battle to believe otherwise. A classic example is a seven-man squad led by a specialist four who assaulted a hill held by two T-72s, a BMP, and a squad of dismounted infantry. With the battalion stalled, they went forward across a kilometer of open ground and up the side of the hill. By the time they had cleared the infantry and were preparing to go after the BMP, only three were left, led by a PFC. They killed the BMP and scattered the tanks. Then the PFC called battalion and told them the way was clear. Those guys exist in every company. We as leaders must recognize them and put them where they can do the unit the most good.

My final note is on the National Guard. I have had two National Guard units, and they are part of my earlier comments.

National Guard filler personnel have been used by several battalions successfully to the extent that whole platoons were sometimes Guardsmen. After three days they were indistinguishable from regulars. Overall, though, the problems were as one would expect: The lieutenants were green and the captains rusty. The sergeants were out of shape and the troops were significantly less disciplined than the regulars. Staff coordination was disjointed and unresponsive. But the critical point is that the Guard battalions rotating through the NTC have hit the center of the curve for all battalions.

My conclusions are these: We have a good Army with more iron and more depth than we realize. But we need to study up on a few things, such as the night attack and the delay. Most of all we need to re-invent battle drill, which is simply a set of automatic responses to a set series of actions.

For example, when the lead track of

a platoon is destroyed by a T-72 two kilometers to the front on the other side of a minefield, what does the rest of the platoon do? The second platoon? The third? The command group? The engineers? The ADA? If the response has not been planned and drilled beforehand, the disaster that awaits the unit could haunt it for a long, long time.

JAMES T. ROOT, JR.  
CPT, Infantry, USAR  
Carmel, California

## DISAPPOINTED

I was disappointed by Corporal Darryl Ledbetter's comments (September-October 1984, p. 48) concerning my article on the platoon "Y" defense (January-February 1984, p. 39). I think he needs to spend some time in a good combat simulation center such as the one the 1st Infantry Division has at Fort Riley.

We don't want to concentrate or mass our forces in front of the enemy. We want to put them on his flank or rear. What we concentrate is our firepower by channeling the enemy into killing pockets and using all available resources to destroy him.

The platoon positions are attack positions for a highly mobile defense, and anyone aware of the capabilities of the Dragon and the M-2 and M-60 machineguns would know that these positions are mutually supported by the adjoining platoons. If one of the platoons were attacked, it would act as the anvil while an adjoining company went deep and acted as the hammer to strike the attacker from the rear. (I have platoon fireplans for this defense and will be glad to send them to any U.S. infantryman.)

Service support elements should take a long hard look at this defense because they are the least able to defend themselves. (Corporal Ledbetter needs to study threat capabilities for deep attack.) There is no secure area for service support elements, so we must incorporate them into the defense.

The thing that bothers me most is

Corporal Ledbetter's apparent lack of knowledge about sector stakes and the measures used to initiate, control, shift, and cease firing. Evidently, his unit doesn't have flares, or night vision sights either.

This Y defense is the Chinese V defense with a leg to the rear for flank and rear security. The enemy will be coming at us in waves when we mass; he will fix our positions and bypass us.

I hope that Corporal Ledbetter gets a chance to strap on some MILES gear and lay in this defense and take on one of the other platoons in his company. Remember — level open terrain and a little deception, wire, and mines.

DAVID J. ROBBINS  
PSG  
Wichita, Kansas

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### **JUNIOR OFFICERS IN COMBAT**

I am a former infantry officer and a PhD candidate in history. Among the projects I am working on is a study of junior officers in combat.

In connection with this study I would like to contact former infantry platoon leaders from the World War II and Korean War eras who participated in desperate combat, or who were involved in extraordinary leadership situations in those wars.

My address is 322 Aolua No. 209, Kailua, Hawaii 96734.

OTTO LEHRACK  
LTC, USMC (Retired)

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### **"SPIRIT OF AMERICA" SHOW**

The U.S. Army Military District of Washington will stage its 25th "Spirit of America" pageant at the Capital Centre in Washington, D.C., 12-16

June 1985. Performances will be at 8:00 p.m. each evening with matinees at 2:00 p.m. on 15 and 16 June. Tickets are free but must be obtained in advance.

The show, with a cast of more than 500, uses dramatic tableaux to sketch the history of the Army, starting with conflicts between the colonial militia and the redcoats and ending with Vietnam. It features The Old Guard Fife and Drum Corps, The Army Drill Team, The Commander-in-Chief's Guard, and The United States Army Band — "Pershing's Own." About 75,000 people attend each year.

To obtain free tickets, anyone who is interested may call (202)484-6877 or write to Spirit of America, Fort McNair, Washington, DC 20319-5000.

M.J. LUNDBERG  
LTC, U.S. Army

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### **FIRST DIVISION REUNION**

The Society of the First Division (Big Red One), composed of the members of the First Infantry Division in World War I, World War II, and Vietnam, will hold its 67th annual reunion in Kansas City, Missouri, 31 July to 4 August 1985 at the Hyatt Regency Hotel.

Further information is available from Society of the First Division, 5 Montgomery Avenue, Philadelphia, PA 19118.

ARTHUR L. CHAITT  
Executive Director

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### **SHAEF REUNION**

Almost 10,000 American servicemen were assigned to Supreme Head-

quarters Allied Expeditionary Force (SHAEF) between January 1944 and May 1945. The first reunion of SHAEF veterans will be held this fall, and we need your help in finding these veterans.

The reunion will be held in London, England, beginning 7 October for one week. Participants will have the option of visiting Portsmouth, Normandy, Paris, and Reims during the following two weeks.

For further information, SHAEF veterans should contact SHAEF Reunion Headquarters, P.O. Box 59, Rumson, NJ 07760.

ALLEN PETERSEN

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### **36th DIVISION REUNION**

The 36th Infantry Division Association will hold its annual reunion 28-29 August and 1 September 1985 in Houston, Texas.

For more information anyone who is interested may contact me at P.O. Box 2049, Malakoff, Texas 75148.

L.E. WILKERSON  
Secretary

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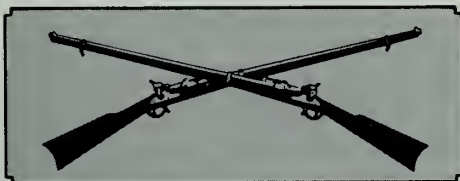
### **INFORMATION NEEDED**

I am making a study of counter-deception as a procedure to neutralize the effect of deception on a military operation.

I would very much appreciate it if any of your readers could send me any available information on this subject.

My address is Commandant J.P. Nel, P.O. Box 233, Rooihuiskraal, VERWOERDBURG 0154, Republic of South Africa.

J.P. NEL





# INFANTRY NEWS



**FIELD MANUAL 22-5**, Drill and Ceremonies, dated October 1984, is now being revised by the Infantry School. The revision process includes a May 1985 conference at Fort Benning and an Army-wide effort to solicit recommendations for changes. Individuals or units desiring to recommend changes to the manual are asked to use DA Form 2028, Recommended Changes to Publications and Blank Forms.

Until a new manual can be prepared, the October 1984 edition of FM 22-5 is to be used on an interim basis. A field circular (FC) will be published in September 1985, and the revised version of the field manual will be available during the first quarter of Fiscal Year 1987.

**THE NEW HOT WEATHER** battle dress uniform (BDU), previously scheduled for fielding 1 October 1985, will now be fielded at the end of December 1985. At that time the uniforms will be available for sale in military clothing sales stores in the United States and for issue in the clothing bag to new recruits. Overseas military clothing sales stores should have the new BDU by mid-January 1986.

Additional quality assurance measures not previously practiced in the military garment industry have caused the change in the availability dates.

**COMPLAINTS ABOUT FADED** pistol belts and belts with a red dye have been coming in to certain Department of the Army agencies.

It has been determined that the use of bleach in fixed laundry operations is responsible for the discoloration.

The correct laundering procedures for all web equipment is contained in Field Manual 21-15, Care and Use of

Individual Clothing and Equipment. All nylon load-carrying equipment items, therefore, should be individually cleaned according to the established requirements specified in the field manual. They should not be laundered by a field, fixed, or home commercial-type laundering operation.

**THE 9mm BERETTA 92SB-F** pistol has won the competition to replace the M1911A1 caliber .45 pistol throughout the Department of Defense.

The Beretta is considered more reliable and performs better than the M1911A1, and it is compatible with weapons and ammunition used by the NATO countries.

The choice of the Beretta was based on a thorough test and evaluation of eight weapons submitted by both U.S. and foreign manufacturers. The Beretta was one of only two weapons to satisfactorily complete the rigorous test program. It weighs 33.8 ounces with an empty magazine in place and 40.9 ounces with a magazine fully loaded with 115-grain bullets. The magazine holds 15 rounds, and a round can be safely carried in the chamber, because the safety mechanism secures the firing pin in place. The safety can be operated either with the left or the right hand, and the magazine catch can be reversed to accommodate left-handed shooters.

The Beretta's sights are similar to those on the M1911A1. The front sight is fixed while the rear sight is adjustable for windage. The weapon will come complete with holster and cleaning kit.

Long range plans call for approximately 500,000 Berettas to be bought to replace the 400,000 M1911A1 and 100,000 caliber .38 pistols in stock.

**ARMY REGULATION 700-84**, Unit Supply, is now being published as part of the *Unit Supply Update*. It is being reprinted every three months with all the latest changes. Blue pages contain instructions for noting the changes and provide an update bulletin for NCOs and specialists. The publication also includes an *Update Bulletin* as a pull-out sheet to give commanders and NCOs an overview of the changes.

**THE 10TH MOUNTAIN DIVISION** (Light Infantry) will be the official name of the newly activated 10th Infantry Division, and soldiers assigned to the division will wear the mountain tab above the division patch.

The activation ceremony for the new division took place on 13 February 1985 at Fort Drum, New York.

While there are no plans at this time for the unit to receive any specialized mountain training, the mountain designation reflects the division's heritage.

**THE NAVY'S BLUE KNIT CAP** has been adopted by the Army as the standard cap to be worn during outdoor physical training in the winter months.

Soldiers should be able to purchase the cap in clothing sales stores in early 1986. Commanders will be able to requisition the cap in November 1985 and issue it as part of a unit's organizational equipment.

The cap sells for \$1.81 in Navy and Air Force military clothing sales stores.

**THE NATICK** Research and Development Center, which is the Army's

proponent for food, clothing, shelters, and airdrop systems, has established a user's telephone hotline. The number is AUTOVON 256-5341.

Army issue and supply personnel are encouraged to use the hotline to report, discuss, or resolve problems they encounter with centrally procured and issued food, clothing, individual equipment, aerial delivery equipment, tentage, and rigid wall shelters.

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**QUALIFIED SOLDIERS** can now wear the Ranger or Special Forces tab replica on the uniforms they wear on formal occasions. Army uniform officials recently approved the metal replicas for wear on the blue and white dress uniforms, the blue and white mess uniforms, and the blue evening dress uniform.

Although soldiers may be qualified to wear both tabs, they are authorized to wear only one, whichever they choose. Soldiers should consult Army Regulation 670-1, Wear and Appearance of Army Uniforms and Insignia, for placement instructions.

The tabs will come in two sizes and should be available in clothing sales stores in July 1985. The replicas may not be worn on service, utility, or field uniforms.

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**THE LEGAL AUTHORITY** of noncommissioned officers is the subject of a videotape recently completed by the Office of the Army's Judge Advocate General. This 56-minute tape, "NCO Authority: Destroying the Myths," deals with the subject in clear, straightforward language.

MACOM sergeants major already have copies of the tape. Additional copies are available at the offices of the local staff judge advocate.

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**THE NATIONAL INFANTRY MUSEUM'S** director has submitted the following news items:

The Museum recently held a reception for the opening of a special exhibit of lithographs depicting military

and other world events during the period 1873-1912, an era known as *La Belle Epoque*. It was, among other things, an era of wars and revolts — the Spanish-American War, the Boxer Rebellion, the Russo-Japanese War, American Indian battles in the West, and attacks against the French and the Russian rulers.

This interesting collection of lithographs is a gift to the Museum from Colonel (Retired) and Mrs. James G. McConaughy; it will remain on display for a time in the Art Gallery.

A large display of historic artifacts was placed on display at the University of Georgia to celebrate the 200th anniversary of the date on which the University was founded. The display relates to the University and the military services and includes artifacts



from all of the major U.S. military involvements between 1785 and 1985. The exhibit was done in cooperation with the Army ROTC detachment at the University and the University itself.

On display now at the Museum is a U.S. Model M1911A1 caliber .45 pistol that belonged to Colonel Howard R. Johnson, the first commander of the 501st Parachute Infantry Regiment. He carried the pistol throughout his World War II combat days and was wearing it the day he was killed in action.

When he was taking his unit through jump training at Fort Benning during the early 1940s, Colonel Johnson would make three to five

jumps a day, depending on the weather, and from that earned the nickname of "Jumpy" Johnson.

Other interesting recent acquisitions include the Colt Python revolver used by Colonel Arthur "Bull" Simons during the Son Tay prison raid in 1970; a large German flag that was reported to have flown over Adolf Hitler's home; and a 19th century French pinfire revolver with bayonet.

The accompanying photograph shows a fiberglass packhorse fitted out with a Phillips pack saddle in the manner of those used by Merrill Marauder combat teams in northern Burma during World War II. The Marauders used animals to transport food, supplies, and equipment, and relied on airdrops for resupply. The display is on exhibit in the Ranger section of the Museum.

The National Infantry Museum Society was formed at Fort Benning a number of years ago to help the Museum with financial and volunteer support. It is open to anyone who is interested in joining. The cost is \$2.00 for a one-year membership, or \$10.00 for a lifetime membership.

Additional information about the Museum and the Society is available from the Director, National Infantry Museum, Fort Benning, Georgia 31905, AUTOVON 835-2958 or commercial 404/545-2958.

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**THE DIRECTORATE OF COMBAT** Developments has provided the following news items:

- **Individual equipment items.** The Infantry School will be presenting a ration-heating device/canteen-cup heater and an improved sock for development and type classification to the Clothing Advisory Group.

The canteen-cup heater is used to heat such things as MRE pouches, beverages, and instant soups. The heating device has a ventilation system and an opening at the bottom front in which a trioxane tablet is placed, and it fits around the outside of the existing canteen cup for storage.

The improved all-weather sock, made of state-of-the-art materials, is



intended to replace the current olive green wool sock as a companion to the new combat boot.

• **Draft TOE for Ranger HHC.** The draft table of organization and equipment (DTOE) for the Headquarters and Headquarters Company (HHC), 75th Infantry (Ranger) Regiment was approved by the TRADOC review board 28 January 1985.

This small elite unit provides a tactical control headquarters capable of deploying with and controlling the Infantry Ranger battalions. It is also capable of acting as a field special operations force headquarters or as the Army component of a joint task force.

The unit provides for S-1, S-2, S-3, S-4, and S-5 sections, a small reconnaissance platoon, a communication platoon, a fire support element, and a medical support element. With a strength of 130, this unit is capable of deploying with or without its seven organic vehicles.

• **C<sup>3</sup>I Automation.** Representatives of DCD are attending a continuing series of workshops to develop command, control, communications, and intelligence (C<sup>3</sup>I) structures for Infantry proponent organizations that will use the latest technological advances in microcomputers, data distribution, and electronics.

The objective of the program is to achieve better communications and command and control with a reduction in electronic signature, a faster, more reliable transfer of information, and a possible reduction in personnel resources. This effort calls for innovative concepts and an increased challenge to industry and military managers alike.

A NEW PHYSICAL FITNESS policy announced by the Army's Training and Doctrine Command (TRADOC) affects students attending professional development courses at TRADOC's 24 schools.

Before 1 October 1984, students could be given up to 90 days after their school ended to pass the APRT. Now, students attending a professional

development course that lasts for 56 days or longer have to pass an APRT at the end of the course to graduate. Those students who do not pass the test will be designated non-graduates.

In addition, students now will be given a diagnostic APRT during the first week of their courses. Those failing the test will have to take part in a remedial physical training program. A final APRT will be given for record 30 days before a course ends. If a student fails the APRT, he may be retested as often as necessary until the day before his class is due to graduate.

Officer basic course students may be granted a grace period to graduate if they fail the final APRT. But they must pass an APRT within 90 days after their course ends in order to earn a diploma.

THE MEAL, READY-TO-EAT (MRE) has been part of the Army's tactical chow line since 1981. Yet members of the Troop Support Agency's traveling Food Management Assistance Teams have reported that a surprising number of soldiers do not know how to heat the meals properly.

All of the entree items and most of the side dishes in the 12 current MRE menu selections are precooked and vacuum-sealed inside individual packets. Two of the main courses (beef and pork patties) and some side dishes (potatoes and fruit) are freeze-dried.

All of the foods can be eaten either hot or cold. The freeze-dried foods can be heated by pouring hot water directly into the packets and mixing for a few minutes until the foods reconstitute. Cold water is usually preferred for the fruit products. The other MRE items can be heated by simply dropping the unopened packets into hot water.

Soldiers should be warned, however, that the water used for warming the MRE packets should not be used to mix the coffee and hot chocolate beverages. The Office of the Surgeon General has concluded that the packets may contain outside surface contaminants that are potentially hazardous. This water can be used for things

like washing hands or shaving, but it should not be consumed.

MREs can also be heated in other ways. For example, soldiers can heat the main entree packet over an open flame by moving it some two inches above the fire for about five minutes, or they can use the heat from a motor vehicle's intake or exhaust manifold.

While the MRE has met with general approval, soldiers have been critical of certain aspects of the ration. The Army is therefore modifying 5 of the present 12 menus and will increase the size of 7 of the entrees from 5 to 8 ounces. Plans for the future call for introducing a new breakfast item (a ham omelet) and a variety of cold beverages.

In addition, all dehydrated items will be dropped from the MRE. This decision was made because soldiers have said that they do not want to use the water they carry to rehydrate the food and that the packets are difficult to keep propped up when water is added. The dehydrated portions will be replaced by "wet packs." The fruit components will still be in the bendable packets but will also contain a liquid syrup solution.

Plans also call for developing equipment to make it easier for a soldier to heat his MREs.

The Food Management Assistance Teams report that a greater effort in command information is needed to instruct troops in the correct procedures for heating and consuming the MRE menu items.

AS A RESULT OF a series of recent field tests, the Army's Natick R&D Center has recommended that the Army Clothing and Equipment Board approve two new items: a tactical load-bearing vest and a large field pack.

The vest was designed to be a more efficient method of carrying individual fighting equipment. With this vest, instead of having to carry a lot of equipment around his waist, a soldier would have large cargo pockets in front to distribute the weight over his upper torso. Permanently attached

grenade and ammunition pouches are also on the vest, which leave room on the belt for other equipment.

For comfort, the vest's design incorporates laces and straps that allow adjustments to be made for individual torso length and girth. It is made of nylon fabric in a woodland camouflage print and weighs 1.8 pounds empty.

The large field pack was designed to let the combat soldier carry his mission existence load more efficiently under all environmental conditions.



Tactical load-bearing vest and large field pack.

With an internal capacity of 7,500 cubic inches, the pack has side pockets with compression straps located on each side of the pack to carry long narrow objects.

Besides being roomier than the current rucksack, the pack features a separate zippered compartment for the sleeping bag. This allows easy access to the bag and protects it in bad weather. As an added feature, the top flap pocket of the pack is removable and can be attached to the tactical load-bearing vest as a combat patrol pack.

A unique suspension system allows the pack to be custom-fitted to most soldiers. A torso bar allows the pack to be adjusted for length, while the inner frame bars can be bent to match

the contour of a soldier's back. Even with these added features, the large field pack in a light system.

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THE TROOP SUPPORT COMMAND'S R&D Center at Fort Belvoir recently awarded a contract for 45 position and azimuth determining systems (PADS). This is the first military system that can provide "real time" position, azimuth, and elevation data to fire support elements. It consists of three units — a computer/keyboard display, an inertial measurement system, and a power source. It can be installed in a jeep, truck, or helicopter.

This contract is an add-on to previous contracts for 222 PADS. Delivery of all of the units is scheduled to be completed in March 1987.

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THE ARMY HAS COMPLETED contract negotiations for a gamma and neutron personal dosimetry system. This system, which is the first of its kind, is already in large-scale production and service with the British Army.

By using this system, field commanders can calculate the radiation exposure states (RES) of their units. Knowing the RES will enable commanders to carry out realistic planning in theaters of operation where tactical nuclear weapons could be used, or have been used.

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A ONE-MAN OPERATED combat field feeding system, designed by the Natick R&D Center, is intended primarily for company size elements of the new light infantry divisions. The system will provide hot, nutritious meals to 150 people quickly and efficiently.

The cornerstone of the new system is the tray pack ration, which consists of entree, vegetables, starches, and dessert, all of which are thermally processed. The ration can be stored without refrigeration until needed; then it is heated and served.

The current design of the system was demonstrated and approved in January 1984. A single cook, using a minimum of equipment in conjunction with standard field burners and commercially available insulated food carriers and beverage containers, along with a pot and cradle for heating water, can prepare, deliver, and serve one T-ration meal a day. Two MREs (meals ready to eat) complete the daily rations.

The system can be used to support 150 soldiers, including two 25-man units operating at dispersed locations where central field feeding support is not available. When serving has been completed, unopened tray packs can be returned to storage. Empty containers are simply discarded, thereby eliminating the need for KP clean-up.

The kit can be loaded by two soldiers and transported on either a commercial utility cargo vehicle (CUCV), a high mobility multi-purpose wheeled vehicle (HMMWV), a 2½-ton truck, or a 5-ton truck.

The system is now ready for limited type classification and procurement.

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ENGINEER TRAINING in the Army will be consolidated at Fort Leonard Wood, Missouri, according to a recent Army announcement. The U.S. Army Engineer Center and School and the 902d Engineer Company will be moved from Fort Belvoir to Fort Leonard Wood sometime in 1989. Meanwhile, the headquarters of the Army's Intelligence and Security Command (INSCOM) will move to a new facility on Fort Belvoir, which will permit INSCOM to consolidate its headquarters elements at one location. Some phases of the INSCOM relocation will begin this year.

In conjunction with these relocations, the headquarters of the Army Corps of Engineers and the Army Medical Personnel Support Agency will also move to Fort Belvoir, while the Army's Criminal Investigation Command headquarters will move to Fort Meade.





## Concerning "Safety"

CAPTAIN THOMAS P. KRATMAN

There are those people in the Army, or working for the Army, to whom this statement will ring of heresy, but "safety" isn't everything; in fact, it is often not even desirable.

"Safety" is defined for the purposes of this article as an unreasonable preoccupation with reducing or eliminating injuries and deaths to the exclusion of all other considerations. Safety, on the other hand — without the qualifying quotation marks — is defined as the things a leader does to ensure that his troops are as well protected as possible consistent with accomplishing the unit's mission.

Nowhere is the difference between the current view of safety and the overreaction of "safety" more apparent than in our all-too-infrequent exercises with live ammunition.

Consider, for example, a few of the "safe" training exercises as currently practiced in the Army.

In the typical canned live fire exercise, a squad, a platoon, or a company negotiates a set problem against a well-known objective. The operations order (OPORD) for the problem is given to the unit commander. In other words, a platoon leader gets a platoon OPORD that tells him exactly how to position his supporting weapons and maneuver his squads. Controllers at every level make sure no man gets ahead of another. Lanes, sometimes marked with engineer tape, show every sub-unit exactly where to go.

Prepared positions are very obviously laid out for each individual to maneuver toward. These positions are in parallel banks so that no one can be endangered by getting ahead of a firer.

This sort of exercise isn't war; it certainly isn't training; it isn't even much of a show. It is ballet. The troops aren't fooled by it. They can see that they're considered bumbling incompetents and that their leaders are considered worse.

### PROBLEMS

The trouble with this sort of exercise is twofold. First, the exercise takes place under circumstances that would never occur in a war. Second, and far more devastating, each man is relieved of the responsibility he would have in a real war by "safety" officers and controllers. The leaders are not allowed to plan or control the problem; and the troops are not allowed to use any initiative in moving, positioning, or firing. All the great potential to be gained from such an exercise is lost in the interest of "safety."

As a result, we need not be surprised when, in the next major war (as in the last few), our leaders and men initially lack confidence in each other. Then "safety" will have cost us far more men than a more realistic attitude would ever have cost us in training.

The only thing worse than *no* train-

ing is *bad* training, and the totally canned live fire exercise is training at its worst.

Sometimes an unusually courageous commander will take a risk and allow his men to train in the employment of demolitions. Unfortunately, each step in the process will be rigidly controlled. Each man will prime the same meaningless lump of C-4, place it in the same demolition pit, ignite the fuze at the same time, move to the concrete reinforced bunkers 400 feet away, and wait for the explosion.

What are the objectives of training in demolitions? They are to train troops in the technical details of blowing things up and to give them the confidence to do so safely and effectively in war. The standard demolition training mentioned above may accomplish the first of these objectives, but it has a negative effect on the second. If anything, the men are trained to believe that explosives can be employed only if they are 400 feet away and there is a concrete reinforced bunker to hide in.

If the Army's philosophy that "the way you do it in training is the way you'll do it in war" has any validity (and I think it does), the result of this kind of training can only be bad. Bunkers will not be destroyed, obstacles will not be breached, and many men will die needlessly on the battlefield, all in the interest of "safety."

A similar level of confidence is instilled on a grenade range. Grenades

are the infantryman's hip-pocket artillery. They are to be employed at close range under almost any circumstances. But to employ them effectively, a soldier must have an appreciation of their faults and virtues as well as confidence in his own ability to use them.

So how do we train our soldiers to use hand grenades? First, we use inert dummy grenades to practice accuracy and procedures on reasonably realistic grenade assault courses. Then we throw the benefits of that training to the winds by terrorizing the troops on a live grenade range where the sole objective seems to be to get the grenade as far away as possible in the shortest possible time. No soldier can possibly gain any self-confidence with using hand grenades as a result of our standard live grenade range — just the opposite, in fact.

## VICTIM

Another victim of "safety" is guard duty, which is also training of a most important type. We issue the soldiers weapons (sometimes) and ammunition (less frequently) and send them off on their own to secure a vital piece of ground. This duty could have the effect of boosting the confidence of young soldiers who have been shown so little regard on live fire, grenade, and demolition ranges. The whole tenor of guard duty prevents this, however. Even if the soldiers are trusted with weapons and ammunition, none of them is allowed even to place a magazine in his weapon, much less to chamber a round.

Ever notice how infrequently accidents happen when the danger is clear to everyone? Ever notice how often they occur when least expected? From this we can infer a general rule — it is not necessarily danger that kills but a falsely perceived level of "safety" or an artificially induced fear. The man who drops a live grenade, for example, doesn't do it from carelessness but from a terror that drives out all reason. The man shot on a live fire range will most likely be shot by an im-

properly cleared weapon while sitting on a truck waiting to go home. Conversely, the man moving forward under machinegun fire pretty well knows he can't stick his head up very far without losing it, so he usually doesn't.

It would be wrong of me to attack "safety" this way without offering some positive suggestions to help in achieving real safety and high quality, realistic training that builds teams and confidence. I offer, therefore, the following:

**Use common sense.** When the only possible projectiles to be launched by demolitions are grains of sand, one can get very close indeed to the explosion because sand loses its velocity rapidly. Similarly when a bangalore torpedo is detonated under concertina wire the troops should be slightly below ground level and far enough away to be protected from the concussion (which is a distance of a lot less than 91.4 meters). Any wire fragments traveling along the ground will pass over them, and any wire thrown into the air will lose its velocity before returning to earth. A claymore mine can be safely fired four or five meters away from prone troops in the open as long as it's pointed away from them with a couple of sandbags behind it. A grenade can be placed inside a well-built bunker or a trench without danger to a prone man outside it.

**Use the chain of command to control.** Everything done by controllers and "safety" officers to ensure "safety" in a live fire exercise can be done as well by the chain of command with the added benefit of training that chain of command. For a little added surety, the evaluators can serve as auxiliary safeties. Their influence and interference, though, should be minimized.

**Give the OPORD for the next higher unit only.** Let each leader plan for himself how his unit will negotiate the problem, and let him issue his own OPORD.

**Allow adequate time for thorough troop leading procedures.** Any leader who has ever given a standard "safety" briefing on a range should recall for himself how little effect the

briefing had on the troops. They'd heard it all before. The best safety briefing is a good operations order. The best way to ensure real safety in live fire exercises is to conduct complete troop leading procedures, including rehearsals.

As an aside, by placing notional sister units along the right and left boundaries of the range fan, the firing limits can be clearly delineated and, rather than detracting from the realistic aura of the exercise, will actually add to it. The leader should be required to back-brief the evaluator (his actual or notional boss) to ensure that safety requirements are met (in other words, that the missions of adjacent left and right units are not hampered by the careless control of fire). Such back-briefs have as important a place in war as in training.

**Set up realistic conditions with a realistic enemy.** The ground should be of a type that we might expect to fight on and for in battle. Tactically sound, OPFOR-style obstacles and fortifications should be present. Targets representing the OPFOR must be armed, equipped, uniformed, and camouflaged. They should pop up and down, simulate return fire to include showing a signature, and have elements of intelligence value on them. They absolutely must be killable by accurate fire. It helps if they're cheap and easily manufactured out of locally obtained materials (ammunition boxes, E-type silhouettes, nails, wire and balloons, and sandbags).

**The evaluator and the man who planned the range should be one and the same.** Only if the evaluator is intimately familiar with the tactical plan or the OPFOR can he be expected to assess actions as correct or incorrect. For example, if, on a live fire platoon attack, a soldier gets up and makes a seven-second rush to put a grenade or an explosive charge inside a bunker, then an evaluator who is not intimately familiar with the obstacle set-up might well assess the man as a casualty on the spot for no other reason than that he took too long in his rush. On the other hand, if the evaluator set up the range and knows that the only



OPFOR position capable of engaging the man is suppressed by machinegun fire, he may well let the man complete his mission.

**Start small.** It would appear that the overwhelming majority of our combat units aren't ready for this type of training yet. It may even be necessary to start off with canned exercises. There is no tragedy in that. The tragedy is in never going beyond that. The canned exercise may be necessary to prepare the men for real training, just as real training is necessary to prepare them for war.

**Don't let "safety" cover up poor leadership.** If you have leaders who can be neither trained nor trusted to negotiate a realistic live fire exercise,

they simply don't belong in the Army. Get rid of them. In this sense, good live fire training can be an excellent tool with which to improve the quality of infantry leadership in the Army.

**Remember that accidents will still happen.** Accidents are the unavoidable cost of doing business in an intrinsically dangerous profession. I doubt, however, that well-trained troops undergoing realistic training will do more damage to each other than poorly trained troops undergoing poor training.

These suggestions are not pipe dreams. There is nothing that I have suggested here that I have not employed in live fire training myself. And I have never had a man injured or

killed on any of the several dozen such ranges that I have run. You can do as well or better.

The ogre of "safety" has ruled the Army for too long, distracting our attention, devouring our resources, emasculating our officers and men. The time has long since come to depose the tyrant and re-establish ourselves as warriors and men and our Army as a fighting team. This article is offered as a modest effort in that direction.

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# Training Realism and Safety

PAUL A. DIERBERGER

Many people in the Army have expressed concern over the performance of the combat battalions undergoing training at the National Training Center at Fort Irwin, California. This concern is, essentially, that these battalions do not always display the level of training and proficiency necessary for them to defeat the NTC's aggressor forces.

One explanation for these shortcomings is that the training the battalions get before going to the NTC is not realistic enough. And if it isn't realistic enough for the NTC's simulated battle, it isn't realistic enough for actual combat.

But *why* is the Army's training, in general, not realistic enough? A 1977 study conducted by SRI International (under contract for the Defense Advanced Research Projects Agency) blames, among several other factors, stringent safety requirements. That study says, in part, that "safety re-

quirements often make realistic training impossible," but that if the paramount safety requirements are ignored in the interest of realistic training, "the commander's career is in jeopardy."

There are at least six ways in which safety requirements can adversely affect training realism. They can:

- **Inhibit weapon firing.** For example, safety restrictions on hypervelocity tank rounds either preclude or greatly restrict firing this primary antitank round at most Army installations. The same is true for the 25mm gun on the M2/M3 BFV.

- **Break the continuity of action.** Too often in the conduct of a training scenario a unit must stop at an artificial phase line that exists for safety reasons only. During these stops, bores are rodded and the unit generally "steps down" for 15 minutes or more. The continuity and the dynamics of the attack are totally destroyed,

and realism is almost nil.

- **Restrict combined arms training.** Although the combined arms team is firmly entrenched in our doctrine, only occasionally is the concept fully employed in training. It is not employed because of the potential hazards involved in mixing infantry, armor, artillery, and aviation in a single training scenario.

- **Restrict the creation of realistic battlefield conditions and effects.** The use of such things as smoke, tear gas, simulators, and demolition blocks is often severely restricted in the interest of safety. Often artillery and mortar rounds have to be fired so far from the troops that they contribute nothing to realism and training value.

- **Restrict the application of tactical doctrine.** Fire and movement, overwatch techniques, and other fundamental tactical procedures are not easily adapted to live fire training

- **Lock in conservative standards and procedures.** In some cases, rigid safety rules serve to discourage commanders from seeking innovative approaches to realistic training.

If these six effects of safety restrictions were absolutely essential in assuring a reasonable level of risk, there would be little or nothing that could be done to improve realism. The Army would simply have to depend on simulations instead of live fire or actual maneuver for realism.

Fortunately, this is not the case. Most of the effects described can be eliminated or at least alleviated by changing some of the outdated and overly restrictive safety procedures now in the Army publications. There are several areas in which changes could and should be made to improve realism without significantly affecting safety.

First, the Army could change its one-risk-for-all standards for surface danger zones and adopt instead a variable risk concept. Figure 1, excerpted from AR 385-63, depicts a typical surface danger zone. The shaded part shows the areas that must not be occupied while a weapon is being fired. The key point is that the shaded area is the same for everyone whether civilian (kids in schools and orphanages) or military (troops about to be committed to combat). (This is in sharp contrast to the Army's standards for the storage of ammunition and explosives. Here the Army establishes several levels of risk, and the highest risk to which soldiers can be exposed is much higher than the risk permitted for the public.) While it may seem commendable that the Army provides the same protection to its troops that it affords the general public when conducting range firing, the result is a severe restriction on realistic training.

Instead of a single, very conservative risk for all, a surface danger zone should show a series of risk levels. As depicted in Figure 2, the most conservative of these (ring 4) would be for

the general public (schools, churches, passersby). The commander would then be provided with empirically determined, progressively higher risk levels in the form of "risk rings" from which he could choose on the basis of a variety of factors — the experience level of his troops, their desired state of readiness, any special soil and terrain features of his area, and so forth. For those who question the propriety of exposing soldiers to a higher level of risk, it should be emphasized that the injury risk at even the highest level within these rings (x-ring) would be *below* that involved in other activities the Army routinely accepts without serious concern.

No one knows what criteria were used in establishing the current surface danger zones for most Army weapons as contained in AR 385-63. But that standard is believed to have been a one-in-one-million chance of a

skin-penetrating wound. Depending on the type of weapon, this could mean a one-in-ten-million chance of a disabling injury (since many fragmentation wounds are not disabling), and as little as a one-in-100-million chance of death. In fact, the Army has no record whatsoever of a disabling injury to anyone outside a surface danger zone from the effects of a properly fired, properly functioning weapon system.

One study of the relative risks for a variety of Army and non-Army activities reveals an extreme disparity between training risks, especially from weapon effects, and a variety of everyday risks that are routinely accepted — one death in 400,000, for example, from on-duty weapons-related incidents in 1982 compared to one in 2,500 from privately owned vehicle accidents. The obvious question is why do we insist on far higher

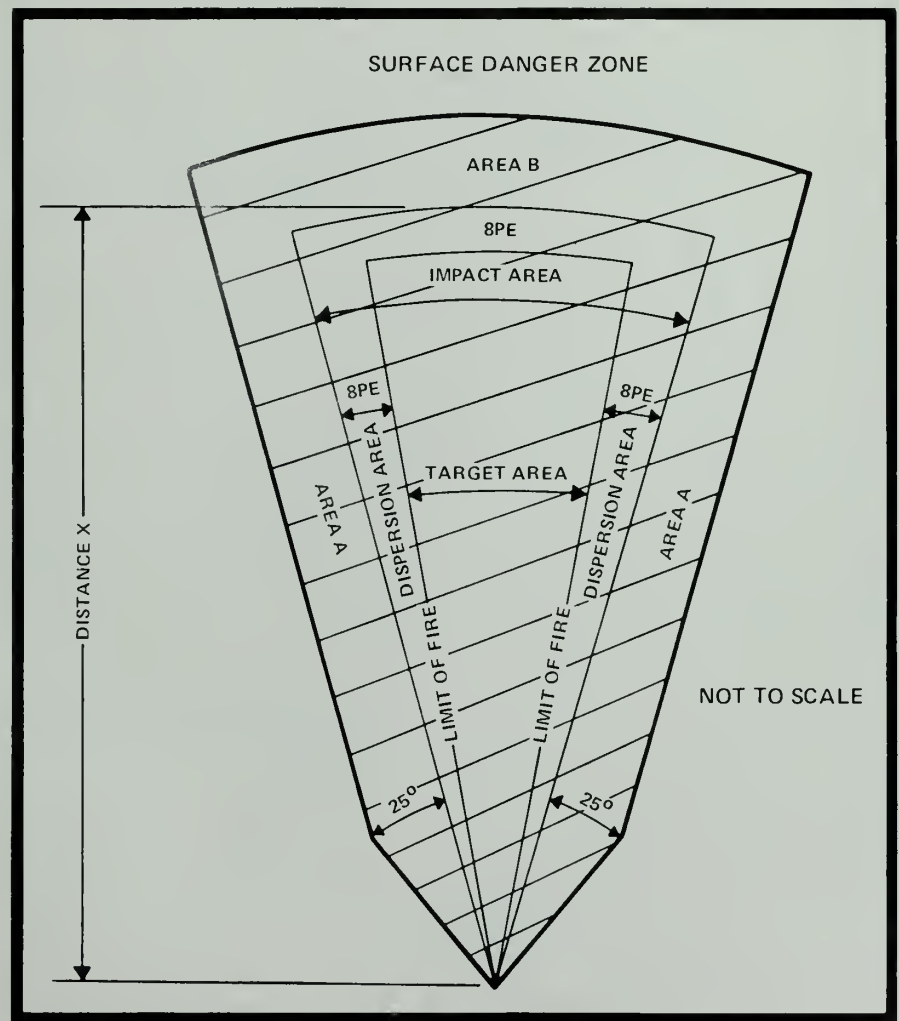


FIGURE 1. FOR MORTARS FIRING AT TERRESTRIAL TARGETS.



levels of safety in training, especially live fire training, than we routinely regard as satisfactory in our daily lives? The answer apparently is that we have never established reasonable levels of risk for training, nor have we ever categorized risks by type.

Clearly, a risk that does not produce any mission benefit has no place in an Army training situation. On the other hand, a similar risk that *does* provide a significant mission benefit may be not only acceptable but desirable. The prudent acceptance of such a risk in the interest of more effective training can obviously be beneficial in both humanitarian and operational terms. The key to success in balancing risks with potential benefits is that risk is increased only where it is necessary.

But what is the difference between

a foolish risk and a prudent risk? Exposing troops who cannot swim well to situations in which they could fall in the water without providing them with flotation devices or having immediate rescue capabilities is an example of a foolish risk. Nothing is to be gained from it in terms of realism. Allowing overhead fire from shoulder-held weapons, however, or fire from behind an advance position, is desirable in terms of realism because these fires would be routine in combat.

It is true that there might be a slight increase in the number of injuries and even deaths in training from this overhead fire, but these would probably be more than offset by better survivability in the unit's first week of actual combat. In other words, we should be willing to accept increased

risk in training when the payoff is high enough.

Another way to solve the safety-versus-realism problem would be to establish compatible safety standards for frequently conducted combat operations. Using, as an example, river crossings involving swimming the M113, as late as 1981 none of several manuals that deal with the subject (FM 7-7, 71-1, TM 9-2300-257-10) had complete guidance on basic safety procedures. In fact, a comparison of these publications revealed frequent direct conflicts on issues as critical as water entry speed, hatch configuration, and emergency procedures. As a result, the Army has had drownings in which the victims were poor swimmers or nonswimmers with no life preservers on board M113s that sank; they never had a chance. (The M113s sank usually because of poor vehicle swimming techniques.)

While some progress toward standardization has been made in this particular area, there are hundreds of similar examples in which casualties have occurred, both in training and in combat, simply because nobody had figured out the "right way" and made it available to the field. Much of the foolish risk-taking that occurs now could be eliminated by improving the standards. And this in turn would improve the climate for the acceptance of prudent risk.

The next step should be to limit accountability and sanctions against commanders to cases in which they took clearly foolish risks. Currently, most senior commanders don't consistently distinguish between training accidents that result from foolish risk-taking and those that result from prudent risk-taking. This attitude encourages battalion and company commanders to sacrifice training realism for the highest possible level of safety. After all, why should they be responsible for assuming a prudent risk if it is going to be treated the same way as a foolish risk when something goes wrong? Why take any risk at all if it could be damaging to their careers? The result of this kind

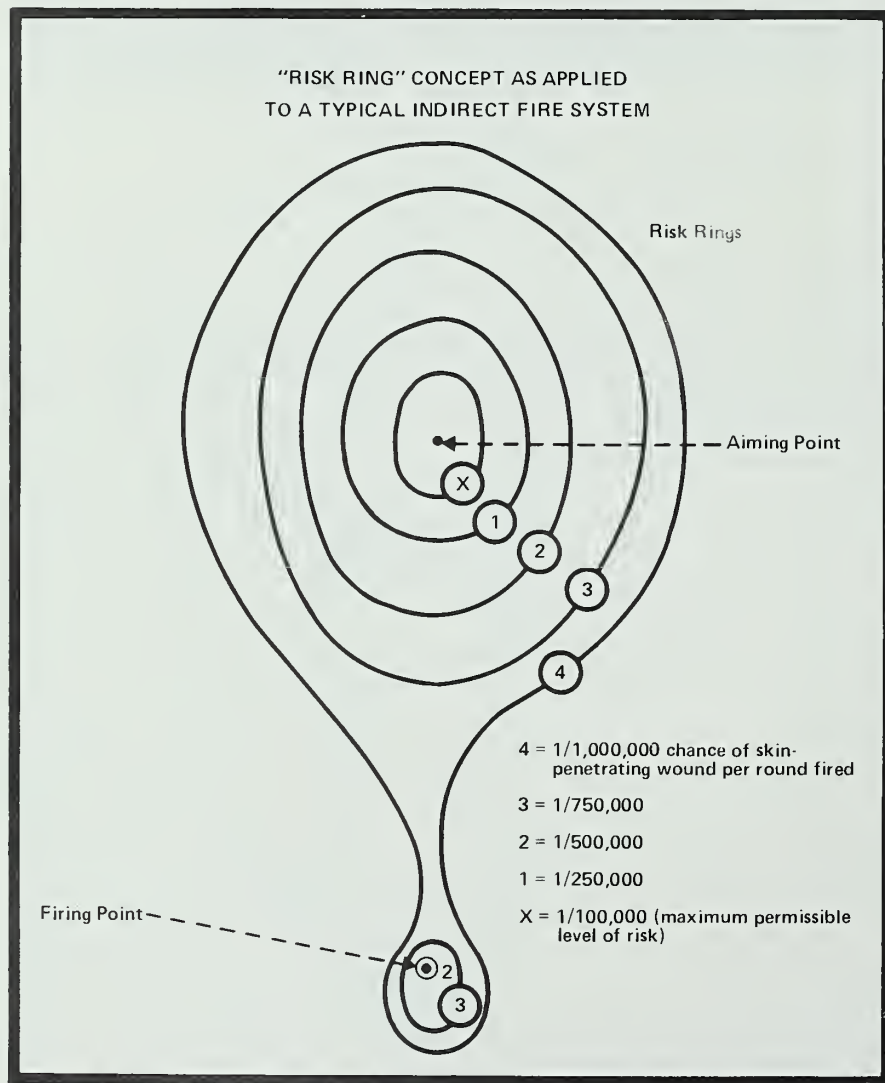


FIGURE 2

of thinking is all too often conservative, unimaginative, and ultimately ineffective training. Thus, the two types of risk need to be clearly defined in regulations and in practice. Then foolish risk-taking must be consistently punished, while prudent risk-taking must never be punished, regardless of the results.

The Army should also initiate a program of research on training realism to identify which risks really contribute to effectiveness. As an example, AR 385-63 currently establishes five meters over the heads of troops as the lower limit for overhead fire. It is reported, however, that one commander signed a waiver so that fire could be placed four *feet* above the *ground*. In this case, a standing soldier obviously could be hit — if he jumped up to avoid a rattlesnake, for example.

The key point is this: How high

over a soldier's head does a bullet have to pass for him to get the "snap" of the round and the realistic experience of being under fire? Can he hear or see the difference between a bullet fired four feet above the ground and one at, say, seven feet? If not, why assume the greatly increased risk of firing at four feet when firing at seven is just as realistic? The Army should conduct tests to determine this "realism threshold" and then make its risk decision accordingly.

There are literally hundreds of similar evaluations that should be made — and could be made fairly simply — that would enable a commander to know for sure, instead of having to guess, which risks are foolish and which are prudent.

Somewhere along the line, occasional losses arising from unnecessary risk-taking have caused us to drift into thinking that *all* losses must be

regarded as unacceptable. As a result, we have reached the point where training is one of our safest activities. But if that training does not satisfactorily prepare our soldiers for actual combat, then what good is it?

Many of our safety restrictions can be modified or eliminated with substantial benefit to realistic training but with little or no increase in risk to the soldiers.

The Army can achieve its combat readiness mission with reasonable safety to the public and its own personnel. Unfortunately, this won't just happen; the necessary actions must be taken *now* by the people responsible.

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# Death of an Old Friend: The M1911A1 Pistol

MAJOR WALKER D. WILLIAMS

The search for a service pistol for the military forces of the United States began in the late 1890s. The subsequent adoption of the Model 1911 pistol was the result of 13 years of research and testing. It, along with its 1926 modification, the Model 1911A1, has faithfully served millions of U.S. servicemen during the past 74 years.

Its reign has not gone unchallenged, however. In fact, during the past 37 years there were many attempts to replace it or to change its caliber. These attempts, until recently, all failed.

But the justification for a change was never as strong as it became in 1984 — what with NATO standardization requirements, Congressional

debate, and a Joint Service Operational Requirement for a personal defense weapon. Today, as we now know, a new weapon has been adopted — the 9mm Beretta 92SB-F — and our old friend the 1911A1 is on its way out.

As it passes, though, it is only natural (because of the importance of a sidearm to an infantryman) to eulogize the 1911A1 by reflecting on its rich heritage.

From 1898 to 1900, a board of Army officers convened to consider the suitability of a .38 caliber Colt weapon for adoption as a new Army revolver and to consider, at the same time, the possible adoption of an automatic pistol. During the first year

the board concentrated on the overall improvements needed in the Army's revolvers. Then, a year later, the board members stated that Colt's Browning .38 caliber automatic pistol appeared to perform so satisfactorily that it should be considered suitable for adoption.

First, though, endurance tests were needed to determine any weaknesses in construction and what effects continued firing might have on the actual life of the pistol. Accordingly, on 19 February 1900, the board began tests in which the pistol was fired 5,800 times. The weapon was simply constructed, easy to operate, and more accurate than a revolver, and only minor mechanical problems showed up on



the test. Its bullet was found to be too light, however, and the board recommended a reduction in the bullet's velocity, an increase in its weight, and a change in the caliber of the weapon — from .38 to .41. The board did conclude that the weapon was still suitable, even without these changes, and that it had numerous advantages over the revolver.

The board also suggested that, before adopting the Colt Browning, the Army buy 100 of them for field trials. This suggestion was adopted, and the weapons were bought and shipped to units in Puerto Rico, Cuba, and the Philippine Islands, and then issued to serving officers in those units. (In the Philippines, the new pistols were used in active combat against the Moro insurgents.) The weapon was also evaluated by cavalry officers in the western United States.

The pistol was praised for its accuracy, its simplicity of construction, and the rapidity with which it could be fired. Many officers remarked posi-

tively on its ability to fire eight shots without having to be reloaded, two more than with the revolver. The main criticism echoed a familiar complaint about automatic pistols in general: It required both hands to pull the slide back for loading.

Other negative comments referred to the pistol's poor balance, failure to eject empty cartridge cases when it was dirty, inadequate caliber, shortness and smoothness of the grip, and overall awkwardness. The officers also said that the front sight was too high and that it was impossible to tell at a glance whether the chamber was loaded.

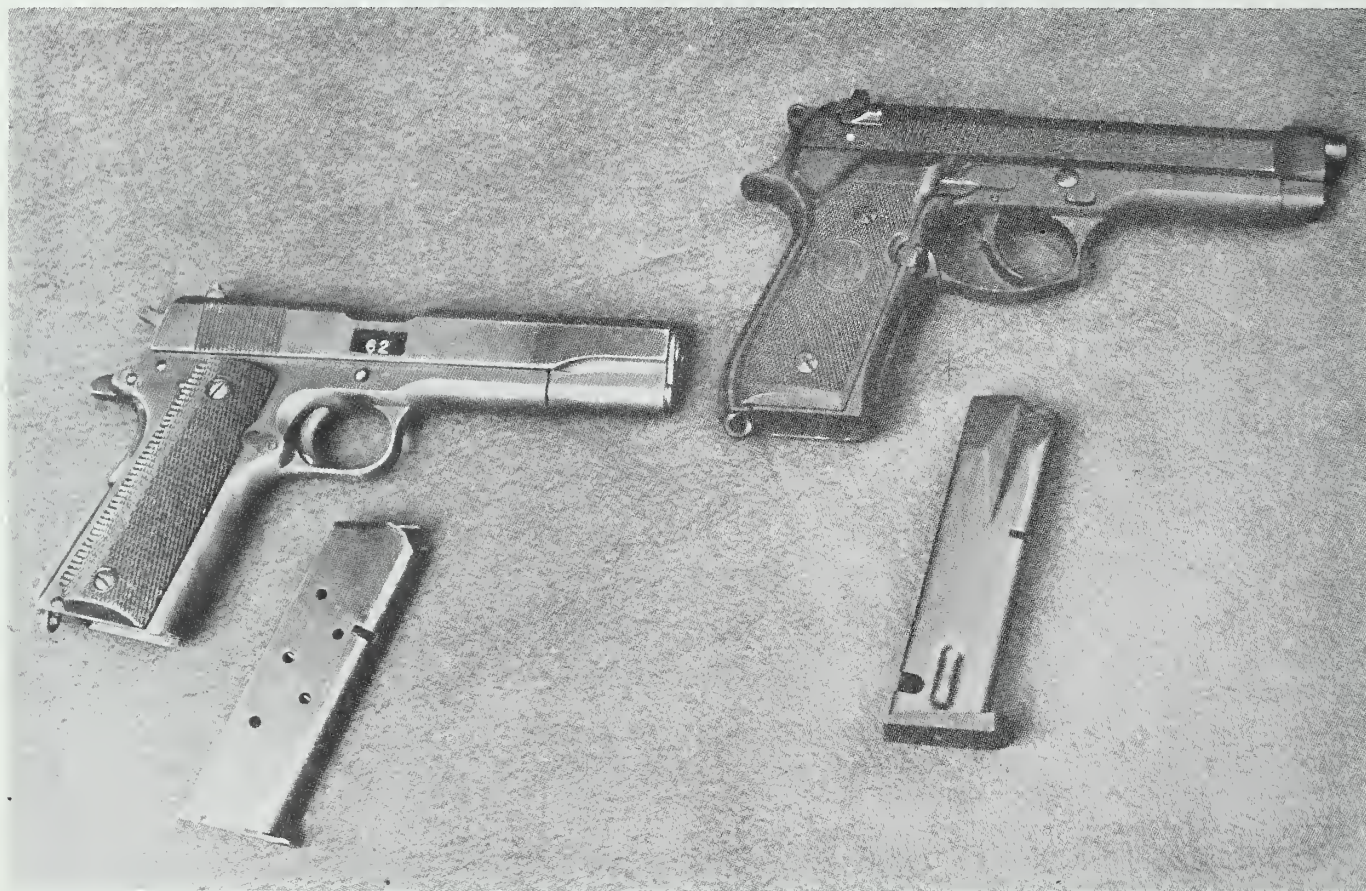
Colt's engineers and John Browning himself reworked the pistol and modified the slide lock to hold the slide open after the last shot had been fired as an indication that the weapon was empty. Following a number of other modifications, the weapon, in .38 caliber, became known as the Model 1902 Colt Browning.

Colt tried to sell the weapon to the

British, but it was unacceptable to them because the caliber was smaller than .40. Colt considered developing a .41 caliber Model 1902 to satisfy both British and U.S. complaints about the inadequacy of the .38 caliber (9mm) cartridge. But this project was never started because the U.S. Army was concurrently conducting wound ballistics tests that eventually signalled requirements for a .45 caliber cartridge.

In 1904, the Army's Ordnance Office established a board to conduct a series of tests with bullets of different sizes and weights and to recommend a bullet that had greater shock effect and short-range stopping power than the .38 caliber bullet. The board experimented with 10 different projectiles from 7.65mm to 12.09mm.

On the basis of wound data, x-ray photography, and shock effect, the data from the tests tended to favor large unjacketed projectiles as man-stoppers. As a result the board concluded that a bullet should have a caliber of not less than .45 to produce



The M1911A1 and its replacement, the 9mm Beretta.



the shock effect and the stopping power at short ranges that a military pistol or revolver should have.

On 31 January 1906 the Ordnance Department sent form letters to inventors, manufacturers, and firearms representatives informing them of the Army's plans to test .45 caliber (11.43mm) revolvers and automatic pistols. The object of the test would be to determine which weapon was best suited for use principally by cavalry and light artillery units. Eighteen parties expressed interest in submitting handguns for trial, but only nine pistols were actually delivered. The trials in 1907 narrowed the field of competing handguns to a Colt .45 caliber pistol and a candidate weapon submitted by the Savage Company. The board stated:

*Among the most desirable features of the Savage pistol are its simplicity and small number of parts and their accessibility, the lack of screws or flat springs, the number of cartridges (eight) held by the magazine, the position of the center of gravity and the way the pistol lies in the hand, the expulsion of the magazine by the pistol hand, and the ease with which the breech mechanism may be withdrawn. Among the most desirable features of the Colt pistol are its flatness, compactness, neatness, and ease of carrying, the comparatively short total length, and the ease with which the breech mechanism may be withdrawn.*

The testing officers noted that both weapons required significant changes and cited inadequate safety mechanisms as one of their major faults: The Savage could be improved with wooden rather than metal grips, and its front sight could be improved and more securely fastened; the Colt's trigger and hammer spur also needed improvement; and the pistol needed a more convenient magazine release. The board recommended field trials in 1908 for both pistols because the tests, which had been conducted at the Springfield Armory, could not duplicate the punishment the pistols would receive at the hands of the troops. The Chief of Ordnance endorsed the

board's recommendations and ordered the purchase of 200 improved versions of each candidate weapon.

Unfortunately, the Savage Company lacked the technical and financial resources to compete with the Colt organization. Savage was plagued with basic design problems and had difficulty in getting its weapons to function satisfactorily with the test ammunition, made by the Union Metallic Cartridge Company of Bridgeport, Connecticut. The Savage Company also lost important documents that were required to complete the contract negotiations and discovered that it could not produce weapons with interchangeable parts in time to meet the delivery date. The company did obtain a waiver that allowed it to submit pistols without interchangeable parts. Difficulties with those pistols continued, however, during 1908: Magazines came unlatched during fire, and the pistols would not readily feed ammunition. The bolt hold-open device was often activated while the magazine still had cartridges in it, and the magazine was difficult to remove and insert.

Colt had also agreed to deliver 200 .45 caliber pistols for field trials. Its prototype 1907 pistol had a spurhammer, a rigid lanyard loop, a grip safety, a modified ejection port and ejector, and a frame cut for the attachment of a shoulder stock-holster. Ordnance officials agreed with the basic design elements but suggested that the shoulder stock was unnecessary. Although the 200 Colt pistols were delivered three months late, they were issued and tested in the fall of 1908.

The initial test reports on the Colt were discouraging. The pistols broke sears and firing pins and jammed repeatedly. The sear problem was corrected and John Browning and Colt employees reworked the .45 caliber pistol. They also corrected four other major defects: The two-link locking system was replaced by a one-link system; the grip safety was improved and simplified; the magazine release was repositioned to allow release of the feed device with the shooting hand; and the ejector was improved.

This pistol, similar in design to the 1911 model later adopted, is usually known as the Model 1909.

Tests of this model were conducted at Fort Myer and Frankfort Arsenal, and Browning gave a demonstration at the School of Musketry. Both the Arsenal and the School recommended further consideration of the weapon.

By the spring of 1910 the School of Musketry and the Field Artillery Board were convinced that a self-loading pistol of the Colt-Browning type would be desirable, but the Cavalry and Infantry Boards remained unconvinced. To resolve the opposition to the 1909 model, Browning developed a new prototype and called it the Model 1910.

When the Model 1910 experienced several initial failures at Fort Myer in February 1910, Browning reworked a number of the design aspects. Subsequently, the Model 1910 received praise from both ordnance officials and the Infantry Board, but the Cavalry Board continued to oppose the adoption of an automatic pistol.

The Colt 1910 and an improved Savage pistol were tested on 10 November 1910, beginning with an examination of the weapons and their safety devices. Field stripping and complete disassembly were performed and timed. Velocity, penetration, accuracy, and endurance were measured. Both weapons experienced malfunctions and broken parts during the test but were rated superior to the Army's revolver. The test board stated that neither automatic pistol "in its present design" was satisfactory for adoption in the service "because of insufficient strength of parts and in the case of the Savage of insufficient reliability of action," but went on to say that the Colt automatic pistol was believed to be much the better gun.

As a result of these findings, both Colt and Savage further modified their pistols. Colt designated its new design the Model 1911.

On 3 March 1911 the test board was reconvened to examine the modified Colt and Savage pistols. The board found that the performance of the Model 1911 Colt was "almost fault-



less," but that the Savage experienced 32 malfunctions and a number of broken or damaged parts. The board clearly favored the Colt-Browning Model 1911 and submitted its report to the Secretary of War who, on 29 March 1911, approved the selection of the model. (Colt, Remington Arms, and the Springfield Armory produced a total of 723,275 of these pistols between 1912 and 1919.)

After World War I, the Cavalry Board and the Springfield Armory recommended that the Model 1911 be modified to reduce the width and the length of the hammer spur, to lengthen the grip safety tang, and to provide an arched mainspring housing. Colt prepared five weapons with these modifications and submitted them to the Ordnance Department, which directed that the changes be incorporated into all future weapons.

A continuing need for personal defense weapons in World War II led to the mass production of 1,878,742 pistols. Even with this tremendous number of weapons on hand at the end of the war, a replacement for the Model 1911 was soon being considered.

Following World War II, and as early as 1948, the Army began testing potential replacements for the M1911A1. The Smith and Wesson Company, for example, developed a double-action 9mm automatic pistol and submitted prototypes of it to the Springfield Armory for testing. After testing the weapons, the government requested a single-action version, and Smith and Wesson submitted five such weapons to the Army. Although the test results were exchanged between the factory and the Armory, the project was not continued, because NATO standardization requirements began to affect the search for a replacement weapon.

In 1962, NATO developed its STANAG 4090, which called for standardizing handguns and submachineguns in the 9mm caliber. Twelve NATO countries ratified the STANAG, but the United States did not. Instead, during the late 1960s and 1970s, various agencies in the U.S.

continued to develop requirements documents, conduct surveys, and evaluate replacement weapons.

Finally, in 1974, the U.S. Air Force began a detailed evaluation of a 9mm handgun as a possible replacement for both the M1911A1 pistol and the .38 caliber revolver. Its preliminary report in 1980 concluded that the Beretta 92S-1 9mm pistol was "superior to all other 9mm pistols evaluated (S&W M459, FN HP, Colt SSP, FNFA, H&K PS, Star M28, FNDA, H&K VP 70)" and to the M15 .38 revolver and M1911A1 as well. Both the Air Force and the U.S. Secret Service agreed that the Beretta pistol satisfied their requirements.

During the 1970s, too, the Army's Combat Developments Command developed a requirements document for a new handgun and hosted numerous conferences within the research and development community. Both the Army's Infantry Board and the Infantry Agency of the Combat Developments Command participated in these early studies, none of which resulted in any conclusive action.

The most significant of all the studies during the 1970s was one conducted by the Joint Service Small Arms Program Office and the Army, along with all the other services. The results of the study, published on 5 June 1980, recommended that all services "adopt a 9mm handgun to meet NATO standardization requirements and that they develop a single family of handguns and ammunition."

Accordingly, *Joint Service Operational Requirement (JSOR) for a Personal Defense Weapon (PDW)*, published on 17 June 1981, contained this statement:

*A need has been identified for a Personal Defense Weapon/Standard Service Sidearm which is no heavier than the current caliber .45 M1911A1 pistol with ammunition but which has a combination of greater firepower, accuracy, and a higher probability of hit and increased RAM than either the M1911A1 pistol or any of the numerous caliber .38 revolvers currently in use. The standard NATO sidearm cartridge, as adopted by all NATO*

*countries, and most other free world countries, with the exception of the U.S., is the 9mm cartridge. This sidearm must utilize the 9mm NATO cartridge to provide for interoperability with these countries.*

When the Army received this requirement, it submitted requests for proposals to handgun manufacturers and, at Fort Dix, New Jersey, in February 1982, tested four different weapons. The weapons failed the Army's test, and procurement plans were cancelled.

Finally, the latest tests in the effort to acquire a new handgun were held in February 1984 at three Army posts: Aberdeen Proving Ground, Maryland; Fort Dix, New Jersey; and Fort Benning, Georgia. Each manufacturer was required to submit 40 pistols — 30 for testing and 10 for training purposes. The candidate pistols were to be off-the-shelf items rather than new research and development efforts.

Specifications for the test guns included requirements for a chamber designed for the 9mm NATO round, a magazine with a capacity of at least 10 rounds, an overall length of at least 8.7 inches, a barrel no shorter than four inches, a weight of less than 2.7 pounds, and an ambidextrous safety. These criteria eliminated the M1911A1 from the competition and precluded its conversion to a 9mm caliber.

The trials in February 1984 and other considerations sealed the fate of our "old friend." Nevertheless, the controversy as to whether it or its replacement is the better weapon will undoubtedly continue as long as soldiers recall the M1911A1's reliability and service to the country. It may be dead — but it is far from buried.

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# THE FIGHTING XO AND C4S2

MAJOR STEPHEN C. LIVINGSTON

The restructuring of mechanized infantry and armor battalions under Division 86, along with the introduction of lethal, highly mobile fighting systems, leaves the role of the battalion executive officer (XO) in question. The term "fighting XO," so much in vogue today, seems to mean many things to many people.

One thing is clear, however: Because of the mobility of fighting systems such as Abrams tanks and Bradley fighting vehicles, a battalion commander needs his XO's help more than ever to effectively command his unit and control his assets. As second in command, the XO must be more than just the unit's battlefield logistics coordinator; he must be totally familiar with the tactical situation and directly involved in it.

At the same time, though, this mobile and fluid battlefield makes his job as logistical coordinator more challenging, because the logistical "battle" must be synchronized with the tactical battle. Without this synchronization, the Abrams and the Bradley can quickly outrun their logistical lifeline.

This article is an attempt to describe some methods one battalion (the 1st Battalion, 30th Infantry, 3d Infantry Division) has used in Europe to effect the intent of Division 86 doctrine and the concept of the fighting XO. In certain instances, as will be apparent, these methods are not in perfect harmony with the letter of that doctrine, nor are they in harmony with currently developed modified tables of organization and equipment (MTOE), especially in the area of communications. Nevertheless, they do work and work well.

First, what is the fighting XO's role in a battalion? He monitors the tactical battle by "eavesdropping" on the battalion command net. On the brigade's command net, he responds for the commander when the commander is unable to answer, for whatever reason. While the commander influences the central battle in his sector, the XO monitors and can influence the portion of the battle that is not in the commander's immediate focus. The XO



closely follows the battle on either flank and keeps the commander informed as needed. The XO renders any reports that may be required by the brigade, relieving the commander of that responsibility; he anticipates the needs of the commander on the basis of the tactical situation; and he requests additional combat power as it is needed.

Finally, the XO orchestrates the unit's logistical battle to ensure that it supports the tactical battle. He prompts and coaches the battalion S-4 — the logistical coordinator and executor — to see that the needs of the battalion are met. Thus, he assures that the logistical battle is synchronized with the tactical battle.

To accomplish all of this the XO must have at his disposal sufficient means by which he can influence command, control, and communications (C<sup>3</sup>) at the combat service support level (CS<sup>2</sup>). Combined, these become command, control, communications, and combat service support, or C<sup>4</sup>S<sup>2</sup>. For the XO, these are not separate terms and systems but one unified system.

A fighting XO, therefore, is a stage manager in the literal sense of the word. He strikes a balance between the combat and logistic needs of the battle, thereby allowing his commander to focus his attention on the central battle. As the "actors" are needed, the XO sends them on stage without undue prompting from the commander. He is also fully ready to assume command on a moment's notice.

What means does the fighting XO have at his disposal for C<sup>3</sup>? The command and control of the direct tactical battle is accomplished primarily through the tactical command post (TAC CP), which some more commonly, but erroneously, refer to as the jump TOC. The TAC CP is manned by the battalion commander, the air liaison officer (ALO), the battalion assistant operations sergeant, an S-2 representative, the NBC NCO, the commander's assistant operations sergeant, and a forward observer (FO). It usually consists of three or four vehicles, the commander's track, the S-3's track, the ALO's track, and, on occasion, the commander's light wheeled vehicle.

## SPLIT AND MOVE

The TAC CP can split up and move to different locations to accomplish specific missions and then rendezvous at another location. The ALO, for example, can move to a vantage point to control close air support, and the commander can move about the battlefield to influence a battle while the S-3 track remains on a good communications site to relay information. Depending on the situation, the S-3 or the antiarmor company commander can complement this crew to assist the commander. The commander's light wheeled vehicle follows the TAC to provide backup communications and to transport the battalion commander, if required.

The TAC CP is usually located well forward and moves frequently to allow the commander to influence

the battle at its central focus. Its location, of course, is entirely dependent on the battalion commander's needs and desires. The TAC CP is not capable of 24-hour continuous operation, though, because of manpower constraints. It is active at the decisive point and time during the battle. At other times the battalion S-3 or the XO controls the battle from the TOC.

Some modifications to the battalion's communications and power generation means are needed for the TAC CP to operate. The S-3's track should have three radios to operate effectively. These radios are entered into the battalion command net, the brigade command net, and the brigade operations and intelligence (O&I) net. The commander's track must be entered into the battalion and brigade command nets and the fire net (for the FO), and must also be able to monitor the brigade O&I net. The FO and the commander's operator monitor and respond to these nets. The ALO monitors the battalion command net and his own Air Force nets (UHF/VHF) through his own systems mounted in his M113. The ALO track also needs an externally bracketed 1.5- or 3-kilowatt generator on its rear deck to provide auxiliary power to the TAC. (It is not advisable to use an M577 because of its mobility problems and bulk.)

Although the TOC in this arrangement does not move as frequently as the TAC CP, it is able to move quickly, and it *can* move frequently without disruption to command and control, because it is lighter than the traditional TOC.

The TOC should be no larger than eight vehicles, the key ones being three M577s — the S-3's, the S-2's, and the FSO's. The other vehicles in the TOC are the thin-skinned vehicles that are ancillary to its mission — the battalion XO's, the S-3's, the HHC XO's, and the communications platoon's light wheeled vehicles.

The battalion XO controls the TOC, or, in his absence, the S-3. The principal personnel in the S-3 section are the S-3 Air, the chemical officer, and the operations sergeant, augmented by another NCO, preferably in the rank of staff sergeant, to assist the operations sergeant. The air liaison officer is not assigned to a shift and should not normally be in the TOC. (Shifts will not be discussed here because they tend to be somewhat dependent on the personalities of the individuals involved. It is up to the battalion XO, the S-2, the S-3, and the intelligence and operations sergeants to ensure that the members of all shifts, both the S-2's, and the S-3's, are well trained and competent.) The entire S-2 section mans the TOC unless it is necessary to send a representative with the TAC CP. When the TAC CP requires someone from the S-2 section, that person should be the battlefield information control center officer or the senior intelligence analyst.

The FSO's location is dependent upon the desires of the battalion commander, but consideration should be given to leaving him at the TOC where he can manage and plan supporting fires more effectively. He cannot fully plan and manage the supporting fires from the TAC CP. The FO with the TAC CP can call for the fires the

battalion commander needs. Wherever the FSO is, the battalion XO or S-3 should see that he is kept abreast of the tactical situation at all times and is included in planning and anticipating the needs of the direct battle.

The primary role of the people in the TOC is to monitor the direct battle over the battalion command net and to assist the commander when needed. We found the TOC configuration shown in Figure 1 the most efficient, and it generally permits the employment of the TOC in constricted terrain.

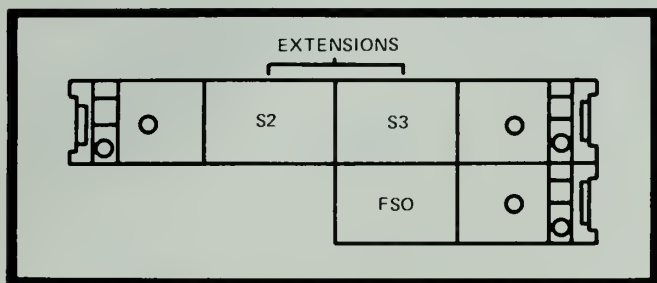


FIGURE 1. CONFIGURATION OF TOC VEHICLES (S2 AND S3 POSITIONS ARE INTERCHANGEABLE)

The use of camouflage nets and concertina wire must be weighed against the tactical situation and the terrain; they are cumbersome and time-consuming to deploy and remove. Nets should probably be used in generally static defensive operations in sparsely vegetated or deciduous areas, especially if the enemy's intelligence collection efforts are principally made up of overhead and ground based systems focused on battalion or company C<sup>3</sup> systems. Neither nets nor wire should be used during offensive and counteroffensive operations or operations in densely vegetated or coniferous areas, or when enemy intelligence collection systems are principally derived from signal intelligence. Without this encumbrance, the TOC can establish itself more quickly at a new site. Thus, security is sacrificed for speed.

The internal configuration of the TOC is shown in Figure 2. The ramps of the M577s are kept in the raised position because this allows the radio operators (instead of senior NCOs and officers) to operate the radios; it provides more rapid protection from artillery; and it provides more usable space in the extension. The battalion and brigade command nets are removed from the S-3's M577 to the area indicated in Figure 2, and the brigade O&I net is removed to the S-2 area. (This requires one additional AN/GRA-39, which is taken from the command group.)

Radio-telephone operators are trained to respond to routine reports and requests for information, but they automatically defer to the senior officer present — who is able to monitor the nets (via the remote hook-up) — for calls from the battalion commander, or for calls that request permission to perform any type of activity. The remote is used as an intercom between the M577 and the extension. The radio-telephone operators are supervised and assisted by the shift NCOIC who also records all radio traffic in the log.

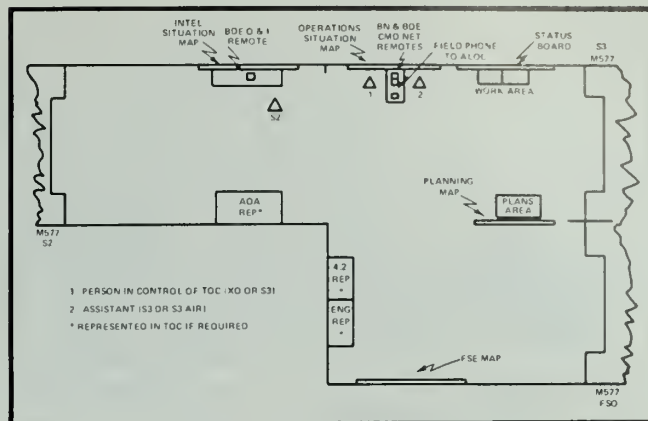


FIGURE 2. INTERNAL TOC CONFIGURATION

The configuration shown in Figure 2 allows for a good flow of information between the S-3 and the S-2. (Information flow is often lacking in TOCs, with the S-2 usually not fully aware of the current tactical situation.) It also allows the FSO to monitor both the friendly and the enemy situation closely.

## AUGMENTED

Here again, the communications permitted by the MTOE must be augmented. The S-2's and the S-3's M577s must be equipped identically so that either vehicle can perform the other's mission as well as its own. This is most crucial during movements by echelon. The TOC should be the net control station (NCS) at all times and should never pass the burden of control to the TAC CP. Either of these two M577s can displace first. The crews — "jump teams" — must be crossloaded between the two vehicles during movements by echelon, and everything works best when these "jump teams" have been pre-determined and can remain the same all the time.

With the establishment of these "inviolable" rules ("jump teams," identical communications equipment, and the understanding that control of the NCS is not to be passed to the TAC), displacing the TOC becomes a quick and efficient operation. (On an average, this battalion can totally displace the TOC and be fully operational at the new site in 45 minutes. When the "inviolable" rules are not observed, however, for whatever reason, our displacement time increases dramatically.)

It is necessary to point out here that no extraneous equipment or personnel should be at the TOC. The TOC should be kept light and highly mobile, so it can displace with only a few minutes' notice. Yukon stoves are used instead of space heaters (they take less time to cool and less storage space), the RTT is at the combat trains (to reduce the electronic signature), and, as a result, the signal operation platoon is also at the combat trains. Either a single infantry squad or the better part of a platoon, depending on the situation, should be provided to the TOC for security. Depending on the size of the security element, a portion of it can also help provide security





for the combat trains, which should be no more than 1,000 to 1,500 meters from the TOC.

The HHC XO or first sergeant is responsible for coordinating the defense of the TOC, and he and the battalion signal officer make up both the site reconnaissance and the quartering party teams. Although doctrine calls for the HHC commander to fulfill this function, because of the field trains' size composition (150 people and approximately 40 vehicles), his presence at the field trains is generally more important, especially during the TOC's initial establishment or re-establishment. He commands the field trains (which is also where most of his company is located) and coordinates its defense. He should also visit the TOC periodically to check on the company XO or first sergeant and to provide any guidance they may need on the defense and the external organization of that location.

When feasible, the antiarmor company commander can provide an alternate TOC and should visit the main TOC frequently to keep abreast of the tactical situation. He should also monitor both the battalion and brigade command nets. When the TOC has been called three times (on FM nets) and has not answered, he should respond. He should also follow up to determine the reason why the TOC did not respond. (This same procedure is also applied to communications between the TOC and the TAC CP.)

## LOGISTICS

The fighting XO, in his role as logistical coordinator, commands and controls the logistical "battle" through the battalion S-4. He communicates with the S-4 principally over a land line established between the combat trains and the TOC, but he can also use the battalion command net for that purpose. The land line between the

TOC and the combat trains is installed as soon as both sites have been established. The two should therefore never be more than 1,000 to 1,500 meters apart. (Another reason they should be relatively close is that the combat trains are central to the logistical operations just as the TOC is central to the combat operations).

The S-4 establishes, for command and control purposes, a site similar to the TOC; it is known as the administrative and logistics operations center (ALOC). It is the nerve center not only of the combat trains area but of the entire logistical operation for the battalion.

The ALOC consists of the S-1 and S-4's M577 and the RTT's M577. It is manned by the S-4, the S-1, the battalion maintenance sergeant (BMS), the S-1 and S-4 NCOICs, the RTOs, and the necessary operators for the RTT. The ALOC maintains a tactical and logistical situation map and enough charts to monitor the administrative and logistical "battle." (The RTT is located with the ALOC instead of with the TOC to reduce the TOC's electronic signature, and also to transmit the lengthy reports that come from the S-1 and the S-4.)

The ALOC is also the NCS for the battalion administrative/logistical net.

All requests for logistic support are sent through the ALOC, which then directs the necessary agency to fill them. In addition, all vehicle traffic to and from the FLOT (forward line of own troops) and the field trains moves through the combat trains so that the logistical flow can be more effectively controlled. This must be the ALOC's single "inviolable" rule, and it must be made a part of the logistical plan.

The combat trains also have at least one medical M577 aid station, a portion of the maintenance and service section of the battalion maintenance platoon in an M113, and at least one M88 recovery vehicle — all armored vehicles. As few thin-skinned vehicles as possible are in-

cluded in the combat trains, but at least one TPU and one 5-ton truck loaded with a standard mix of Class V supplies are there all the time, ready to be "pushed" forward by the S-4 as the tactical situation dictates. When these vehicles move forward to resupply a unit, replacements for them are called forward from the field trains. This greatly reduces response time.

To maintain an efficient logistic system that pushes products and services forward in response to the tactical situation, the ALOC has to be able to monitor the battalion command net, and it also has to be able to monitor the maintenance net. This increases to three the number of radios in the S-1 and S-4's M577. (One is authorized by MTOE.)

The field trains are the largest of the battalion's logistical operations. They can be either independently located or co-located with the brigade support area (BSA). The field trains consist of the battalion support platoon (less the elements that are located with the combat trains), the mess section, the maintenance platoon (less company maintenance contact teams and the necessary personnel from the maintenance and service section to provide maintenance at the combat trains), and the remaining support personnel. These elements are large enough to provide for their own defense, but it is their very size and diversity that requires the presence of the HHC commander to coordinate not only the trains' defense but also their movement when required. (Doctrine states that the support platoon leader should coordinate the field trains, but the support platoon leader is also the S-4's representative in the field trains and serves as liaison with the BSA as well. The burden of coordinating the movement and defense of the field trains requires someone's full-time attention. It is for this reason and others stated earlier that this mission is best accomplished by the HHC commander.)

## MAINTENANCE

With the centralization of maintenance at battalion level, it is necessary to establish a maintenance net that is independent of the administrative/logistical net. This prevents overcrowding that net, and it makes the administrative, logistical, and maintenance efforts more responsive. Maintenance contact teams are in direct support or under the operational control of the rifle companies and monitor the company command nets. But they are also entered into the maintenance net and can request parts, recovery, and assistance through the ALOC.

The ALOC, manned by the BMS, can forward these requests to the field trains quickly, or it can direct elements in the combat trains to respond.

The establishment of a maintenance net requires only two additional radios, one for the battalion maintenance officer (BMO) and one for the battalion maintenance technician (BMT). The BMO is not fixed to one location; he moves to the critical place at the critical time. The BMT stays in the field trains area to supervise the maintenance effort there and to maintain contact with the direct support maintenance unit.

One key to the maintenance effort for the battalion is a published and enforced schedule of evacuation criteria. A recommended schedule is as follows:

- **Company maintenance contact teams.** In the defense, evacuate a piece of equipment to the combat trains if it can't be repaired in two hours; in the offense, evacuate it if it can't be repaired in one hour.

- **Combat trains.** In the defense, evacuate equipment to the field trains if it can't be repaired in six hours; in the offense, evacuate it if it can't be repaired in two hours.

If a piece of equipment must be evacuated to the field trains from a company maintenance contact team, it is first evacuated to the combat trains, and the combat trains then evacuate it to the field trains. This returns recovery capability quickly to the company.

The fighting XO in a battalion has many difficult tasks to perform. In performing them he cannot allow himself to become divorced from either the combat or the logistical operations. He must develop the logistic "battle" to support the direct battle in a timely and responsive manner.

To help him in this effort are the S-4 and members of the battalion's special staff. The XO must anticipate the needs of his unit, both tactically and logistically, and he must see that reports are sent to higher headquarters to keep them informed of the current tactical and logistical situations. He assists his commander, anticipating his needs and relieving him of some of the more mundane and less critical tasks. The XO is, in fact, the battalion's deputy commander, and as a true "fighting XO," he must be prepared to assume command at any time, instantly and confidently.

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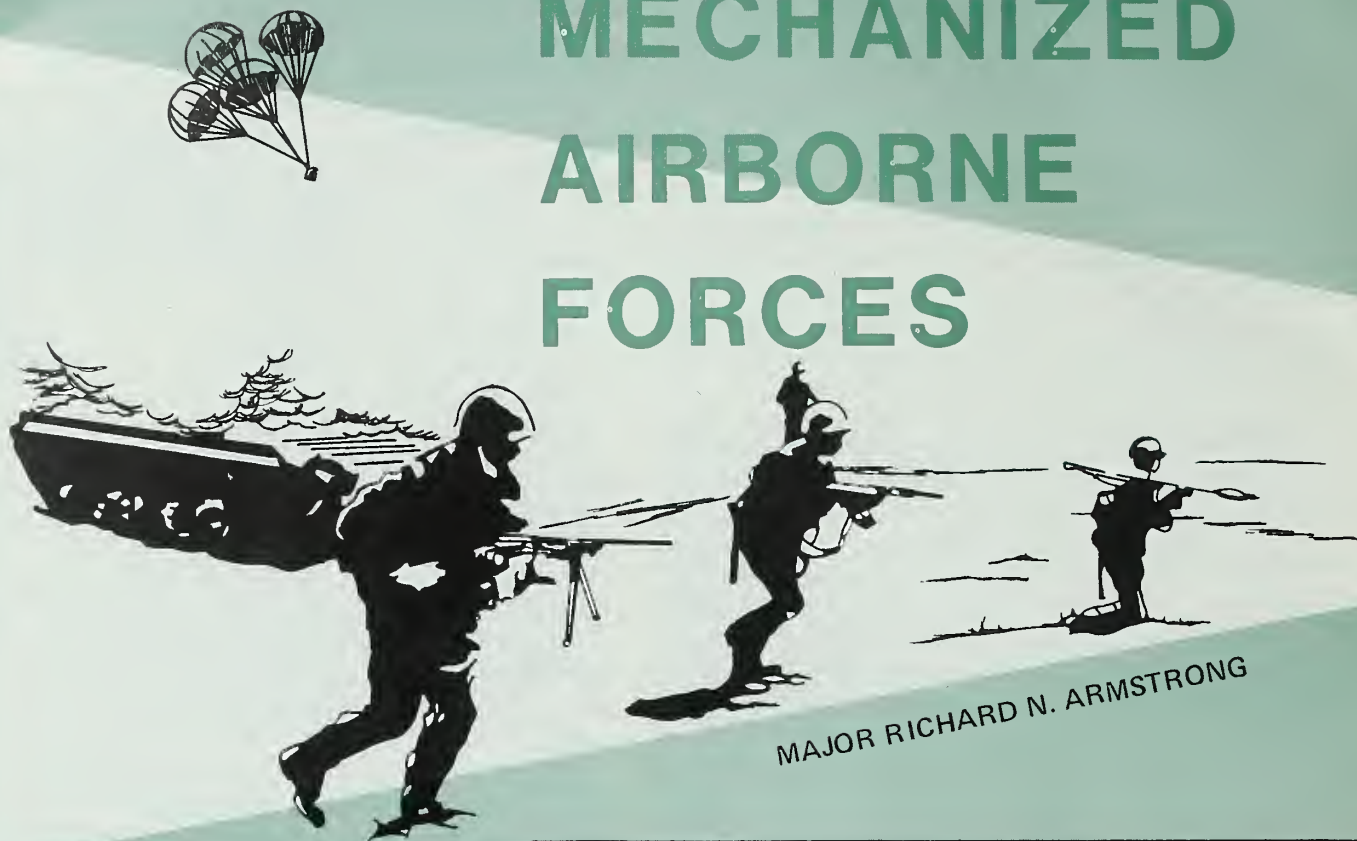
**Major Stephen C. Livingston** recently completed an assignment as executive officer of the 1st battalion, 30th Infantry, 3d Infantry Division. Previously, he served in several staff positions in the 1st Cavalry Division and the 25th Infantry Division and also served on the staff of a division support command. A 1970 ROTC graduate of Wichita State University, he is now assigned to the ROTC Detachment at Southeast Louisiana University.

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# SOVIET MECHANIZED AIRBORNE FORCES



MAJOR RICHARD N. ARMSTRONG

A swift, effective means of attacking throughout the depth of an enemy force has long been a battlefield requirement. Actions against the enemy's rear and flanks, as considered by Clausewitz in the 19th century, constitutes not an increase in force but only a more powerful application of that force. Since Clausewitz's day, battle areas have grown in size, making it even more difficult to use forces in an enemy's rear areas. At the same time, though, technology has increased the means available to a commander to strike throughout the depth of that ever-growing battlefield.

The Soviet armed forces in the mid-1930s were the first to recognize the possibility of using airborne forces for missions in an enemy's rear areas that no other force could accomplish. That early experimentation was only a part of a major effort in the development of modern Soviet military theory.

This development of an airborne capability as a new combat means was, in fact, closely linked with the Soviet

concept of *gluboki boi*, deep battle. Deep battle has become a fundamental tenet in Soviet military operational art that seeks to conduct offensive operations in depth. A central point in that theory is simultaneously neutralizing enemy defenses by various means throughout the entire depth and breaking through his tactical zone on a selected sector. This breakthrough is quickly followed by the commitment of the kinds of forces — such as tanks, motorized infantry, and airborne troops — that can rapidly achieve the prescribed deep objectives.

The combination of an offensive operation in depth, the recent developments in materiel and technology, and the lessons learned from airborne operations in World War II have resulted in a Soviet airborne concept with a range of use wide enough to fully complement the ground forces in wartime operations. By examining the implications of these factors, one can see the full potential of the threat that Soviet airborne forces represent to the conduct of a defense in depth.

Before assessing the Soviets' present capabilities, it is necessary to review their airborne experiences, and to understand the conclusions they have drawn from those experiences.

The official birthday of the Soviet airborne force was 2 August 1930. On that date in the Moscow Military District, during an exercise near Voronezh, the Soviets conducted the first operation by a parachute force dropped in the "enemy rear." Although small in numbers, this unit was given the mission of eliminating an army staff. The landing force successfully played its role and showed that such a force could be useful in modern combat. By 1938 the Soviets had six airborne brigades, and by mid-1941 were forming five airborne corps.

Despite this early lead in the creation of airborne forces, the Soviets' use of them during World War II was less spectacular than the airborne assaults of the German and Allied armies. In fact, popular histories of the war on the eastern front contain little or no discussion of Soviet airborne operations. Soviet airborne forces were employed, however, with limited success in a variety of missions and made a major contribution to the defense of Moscow during the winter of 1941-1942. The Soviets also experienced a disastrous attempt to coordinate the breaching of the Dnieper River line with airborne forces in September 1943. They also conducted smaller airborne and air landing operations on the Kerch peninsula, on Sakhalin Island, and in Manchuria.

Colonel General D. Sukhorukov, Commander in Chief of Airborne Forces, observed (in an article in the July 1981 issue of the Soviet *Military History Journal*) that the Soviets' World War II experiences with airborne forces revealed some major weaknesses. Since airborne forces were light infantry, for example, they carried only light weapons, and this allowed them to be easily brushed aside by more heavily armed forces.

Although these airborne forces had great strategic mobility, once on the ground they had the tactical mobility of regular infantry — two or three miles per hour on foot. Consequently, to avoid wasting the swiftness of the strategic deployment itself, and to achieve tactical surprise, airborne forces had to be dropped on or very near their objectives. As a result, the landing party's engagements usually began and developed under conditions in which the enemy had both fire superiority and greater mobility.

Another crucial aspect of past airborne operations had been logistics. Airborne operations required a relatively long lead time for planning and a tremendous allocation of forces and equipment. Once behind the enemy lines, on foot, an airborne force could conduct only a short engagement, with any success, and the engagement was strictly limited to the time of arrival of the advancing troops from the front. According to the Soviet studies, the usual length of airborne operations in World War II were between a few hours and two or three days. When the advancing troops were delayed in reaching the landing party, the airborne force usually did not achieve its objective. (Many of

these problems continue to be major considerations in planning airborne operations today, but the Soviets have been trying to overcome them.)

## TRENDS

In their combat studies, the Soviets have isolated a number of trends from the lessons they learned in World War II, and these lessons have had a significant effect on the post-war developments in the theory and practice of airborne operations. According to Colonel General Sukhorukov, the main lessons were these: Parachute forces should be equipped with more powerful weapons and combat equipment, equivalent or nearly equivalent in performance to that of the conventional ground forces; improved landing means should be developed to allow the massed use of airborne forces and parachute drops of all authorized heavy combat equipment; and the air transport should be able to complete the drop of a large airborne force with one flight by the aircraft.

The build-up of Soviet airborne forces after World War II was not a steady process, primarily because the Soviet leaders gave little consideration to the use of those forces in future wars. There were several reasons for this. First, there was no immediate advance in technology that would overcome the earlier shortcomings, particularly in the areas of larger air transports and air-droppable combat vehicles. And under Premier Nikita Krushchev, the airborne forces, like many of the conventional forces, took a back seat to the development of the strategic rocket forces and other force modernization programs.

In the early 1970s, however, the concept of employing airborne forces began to receive attention in such doctrinal writings as A.A. Sidorenko's *The Offensive*, a work that prescribed the expanding role of conventional and airborne forces in a nuclear age.

He said, "It is now possible to disrupt the enemy's organized move of reserves . . . and deprive them of the opportunity to set up a defense on advantageous positions by delivery of nuclear missile attacks and . . . by employment of airborne landings . . ." Sidorenko argued that the importance of airborne troops had increased greatly with the appearance of nuclear missile weapons because those troops could quickly exploit the results of nuclear strikes by landing in the depth of the enemy's dispositions.

More recent Soviet doctrinal writings and combat studies have developed a need for a greater conventional role for airborne forces. General S.P. Ivanov, in a study published in 1974, clearly identified a role for Soviet airborne forces other than as a follow-up to nuclear strikes. He was impressed by the Germans' use of small airborne units in the Netherlands to support the German blitzkrieg across the Low Countries in World War II. The German airborne employment had proved tremendously effective in disrupting the Dutch main forces and in easing the crossing of the Maas River and the Albert Canal by German ground forces. This operational level consideration for airborne attacks into an enemy's depth, in fact, com-



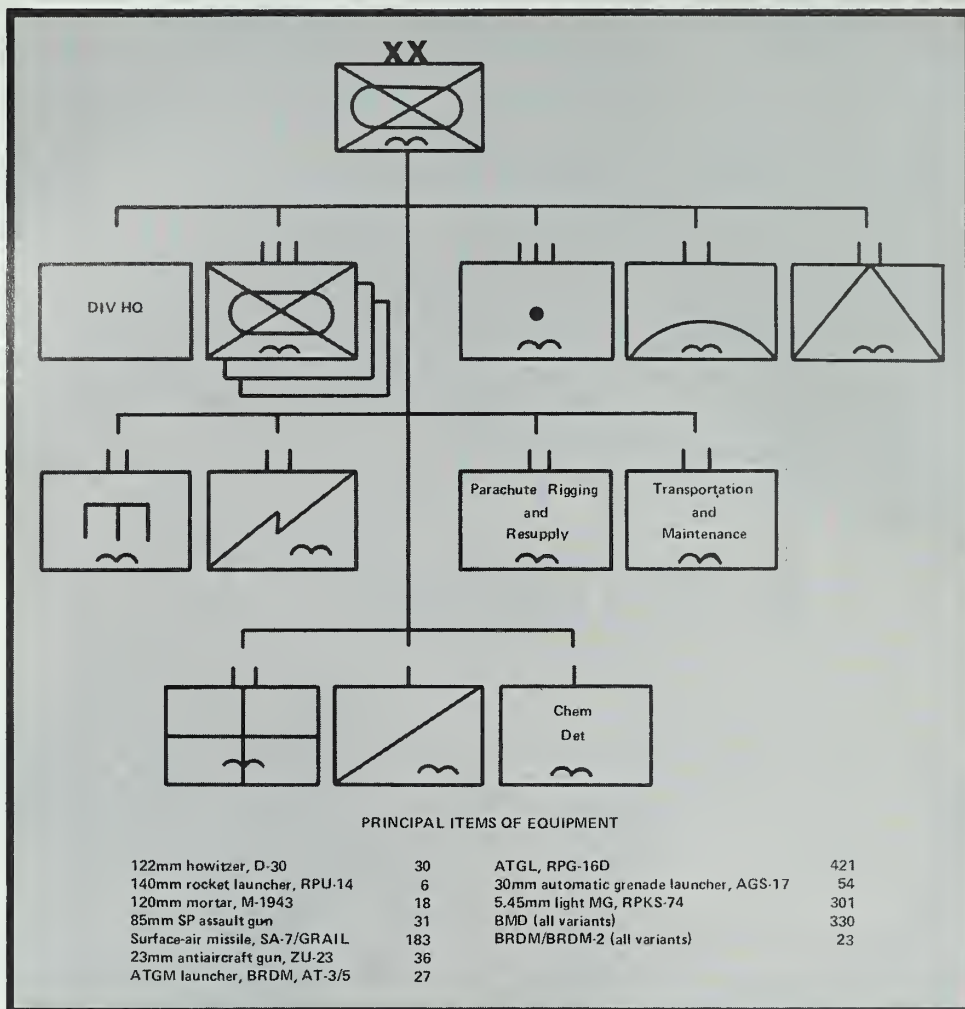


FIGURE 1. AIRBORNE DIVISION.

bined with other lessons learned from World War II, still provides the basis for the continuing effort to build up and modernize Soviet airborne forces.

The Soviets' airborne division today is smaller in personnel strength and in types of equipment than their motorized rifle division (see Figure 1). It is organized on the basic "triangular" system with three platoons to a company, three companies to a battalion, and so on. This force configuration allows operational and tactical employments by forces of regiment, battalion, or company size. Depending on the mission, these various echelons can receive reinforcing heavy combat equipment from higher units.

Recently, air assault brigades have also been deployed in the Soviet Union's western military districts and in the Groups of Soviet Forces in Eastern Europe. The new units, with a mixture of two airborne combat vehicle battalions and two parachute assault battalions provide operational level assets directly to front and army commands (see Figure 2). These brigades add strength and numbers to what is already the world's largest airborne force.

In the past few years a substantial increase in armored personnel carriers, cross-country vehicles, light tanks, and self-propelled artillery pieces has altered the traditional

perception of airborne forces. The Soviets, by arming their airborne units with air-droppable armored vehicles and heavy weapon systems, have put wings not only on their infantry but also on their modern combat vehicles, thereby creating a light mechanized airborne force. This mechanization gives them a more mobile, more maneuverable force with significantly increased firepower for operations in an enemy's rear areas to complement ground force operations.

For the Soviets, the basic factor for success is their airborne units' ability to stand and fight what they consider the primary threat to airborne operations — tanks and other armored combat vehicles. This ability to fight on relatively equal terms against armored forces requires tactical mobility and heavier weapons, and both have been provided, to a great extent, by the primary airborne combat vehicle, the *Bronevaya Mashina Destany* (BMD). The BMD can carry three crew members with four passengers. It can travel in excess of 60 kilometers per hour on highways for an estimated cruising range of 320 kilometers and can cross water at 10 kilometers per hour. In terms of firepower, it has two antitank weapons — the AT-3 (Sagger) ATGM (mounted on a launch rail) and the 73mm smoothbore gun. And the current ATGM can readily be replaced by succeeding generations of missiles.

In its fighting and command variants, the BMD is distributed on the basis of 11 to each company, 35 to each battalion, approximately 105 to each regiment, and about 330 to each airborne division.

In addition to the BMD, Soviet airborne units have other heavy weapon systems that clearly compensate for their previous lack of firepower, and this should concern those who must plan to counter a Soviet airborne threat. The antitank weapons are the ASU-57, the ASU-85 assault gun, and the 85mm SD-44 auxiliary self-propelled antitank gun. Although the ASU-57 and the SD-44 are generally considered obsolete, some airborne units are believed to have them. In the artillery regiment of an airborne division, there are 30 122mm D-30 howitzers and two 140mm RPU-14 multiple rocket launchers. The air defense battalion has three batteries of six ZU-23s with the prime movers being either UAZ 69 trucks or BMDs. In fact, the high density of crew and individual antitank weapons in all Soviet airborne units compares favorably with that of the motorized rifle divisions.

Having solved the major problems of mobility and firepower, the Soviets have turned their paratroop units into what are essentially light mechanized airborne forces with missions in enemy rear areas.

In planning to use this mechanized airborne force,

Soviet airborne doctrine distinguishes between tactical, operational, and strategic airborne landings. These various levels are determined by the number of airborne troops involved, the objective, and the level of the ground force operation they are to support. Generally, depending upon the number of troops involved, a tactical landing could deploy up to a regiment; an operational landing, a division or less; and a strategic landing, up to two divisions.

The variety of objectives that airborne forces can attack and seize includes area targets such as key terrain, road junctions, bridges, fords, and airfields. Specific targets identified for destruction could include nuclear weapon-delivery systems, command and control centers, communication centers, ammunition and nuclear storage facilities, and other key installations.

Airborne forces can perform greater roles in tactical and operational employment, as indicated by General Ivanov, by supporting advancing ground forces, breaking through a deeply echeloned defense system, crossing obstacles, cutting off the enemy's retreat routes, and preventing enemy reinforcements from joining their frontline forces.

After achieving these primary missions, mechanized airborne units have a potential secondary mission — the creation of chaos in the enemy's rear areas through raiding ac-

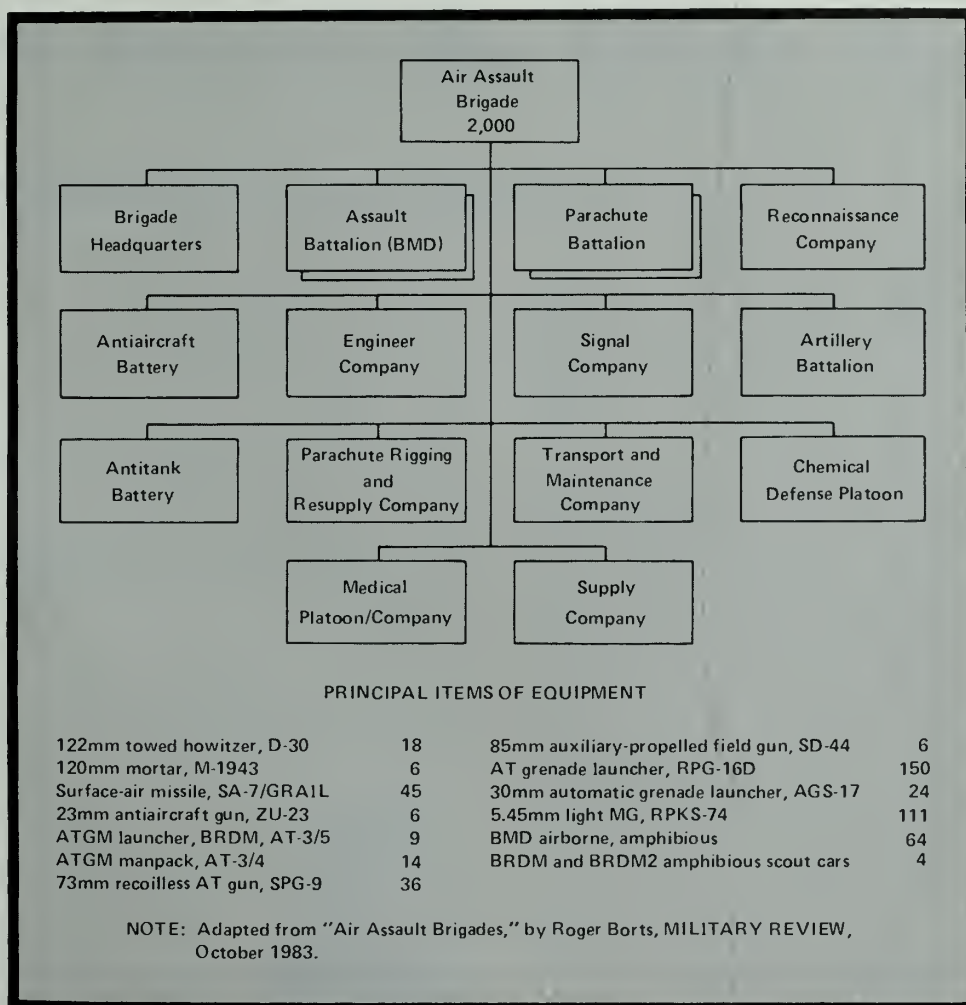


FIGURE 2. AIR ASSAULT BRIGADE.



tivities and the like.

The question arises as to when, where, and in what wartime situations Soviet airborne landings might be expected. Here, again, a clear distinction must be made between strategic, operational, and tactical landings.

A strategic operation would support the military planning in a theater of military operations (TMO). An airborne operation with a strategic objective would be very difficult, however, because it would require large paratroop units to stand by as well as certain comprehensive organizational measures — a large concentration of air transport units, for instance, and a strong air force for protection. Above all, clear air superiority would have to be guaranteed for an extended period, and the safe supply of logistical materiel would have to be organized. There is an inherent risk, of course, in every airborne landing. And in a strategic landing, the Soviets would have to risk losing a fourth, possibly a third, of their total airborne force.

Taking all these factors into consideration, it would seem that a strategic airborne landing by Soviet forces in Central Europe, for instance, appears to be unrealistic if not totally unreasonable. This assessment could and should be quite different for the areas with a lower concentration of troops. The trend in Soviet airborne exercises, in fact, has been to drop units smaller than a division.

Their experience in such exercises, combined with historical lessons and their theoretical development, provides the empirical rationale for the Soviets' application of airborne forces in support of their current doctrine. This doctrine still calls for Soviet forces to conduct a rapid offensive to the operational and strategic depths of an enemy's defensive area. A contemporary means of doing this at the operational level is what is currently referred to as the Operational Maneuver Group (OMG).

The OMG, a formation of division, corps, or possibly army size, is designed to attack into an enemy's rear areas. It has the following missions: exploitation into the depth of the enemy's rear; preemption of movement of the enemy's reserves; blockage of enemy withdrawal routes; parallel pursuit and destruction of an enemy's forces; and seizure of an enemy's defensive lines.

Airborne operational landings, coordinated with a front and in some cases an army, have ominous implications for defending forces. The airborne landings would be conducted by regiments or reinforced battalions. The OMG force, in close coordination with the airborne and air assault components, would seize key bridges, terrain obstacles, river crossing sites, and airfields and would destroy nuclear weapons, command and control centers, and logistical facilities.

The assessment of tactical airborne landings is an entirely different matter. By Soviet count, of the more than 150 airborne operations conducted during World War II, approximately ten could be classified as operational or strategic, while the rest would be considered tactical or commando operations. It can be expected that future Soviet airborne landings will be of battalion or regiment strength, and that tactical airborne landings will be conducted in the defensive zone of large enemy units at a

depth of 20 or 30 kilometers, which is greater than that considered feasible for heliborne operations. Their missions will be relatively simple and uncomplicated and will not require a great expenditure of resources.

In World War II, paratroopers in large numbers were used for the most part to support ground troops. Now the Soviets believe there is a role for independent airborne operations as well — to neutralize nuclear weapons and air and naval bases, and to occupy important targets in enemy territory, separate from the ground force objectives.

Since the equipment and the force structure of the Soviet airborne forces are equivalent to those of a light mechanized force, the implications for operations in the enemy rear areas are as far-reaching as the original concept of airborne landings was in the 1930s. Being able to put a light mechanized force in an enemy's rear area revives the shock and raid capability that was the domain of cavalry forces for centuries. With mechanized airborne forces, the Soviets will be able to raid throughout the width and depth of a modern combat force's dispositions. Their mobility precludes the past countermeasure of containing an airborne contingent with a preponderance of force. Additionally, their own armor makes the paratroopers less vulnerable to artillery fire.

This tactical mobility of the mechanized airborne force means that paratroopers will no longer have to wait until they are relieved. If ground operations in conjunction with an airborne drop fail, as they did in Operation Market Garden (the Allied airborne operation of "A Bridge Too Far" fame), Soviet airborne units will be able to move rapidly toward the frontline troops to effect a reverse link-up. But even this sort of action can cause confusion and possibly panic for the defending frontline troops who might find themselves suddenly attacked from the rear.

The Soviets have not been able to eliminate all the serious problems in conducting their airborne operations. As evidenced by their current force structure and equipment, they have sought ways to reduce their shortcomings and to develop more uses for airborne operations on the heavily armored battlefield of the future. The serious threat of light mechanized airborne battalions or regiments in rear area operations introduces a shock tactic. Once on a line of communications or once occupying key terrain, a Soviet airborne force will not be easily brushed aside — the density of its weapons will allow it to hold its positions.

In short, the concept of a light mechanized airborne force has changed the traditional ideas about the use of paratroopers and has expanded the ways in which they can be used on the modern battlefield.



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# Defending Against Soviet Forces On Urban Terrain

LIEUTENANT COLONEL LESTER W. GRAU

Soviet military literature has recently emphasized the need for more training in military operations on urban terrain (MOUT). U.S. Army literature (FM 90-10) also provides guidance for conducting operations on the urban terrain peculiar to Western Europe. The reason for this emphasis in both armies is, of course, that if a war should break out in Western Europe between NATO and Warsaw Pact forces, fighting on urban terrain would be unavoidable.

In the January-February 1985 issue of *INFANTRY* I discussed Soviet doctrine for conducting operations in built-up areas. In this article, I offer some points a commander should consider in preparing to defend against such operations.

First, a defending commander must prepare to defeat Soviet reconnaissance elements. Those reconnaissance elements — mounted on BMPs, BRDMs, or motorcycles — will be able to call for artillery fire, pinpoint enemy defensive positions, and probe for defensive flanks and weak spots. If the defending commander can draw the reconnaissance forces well within the urban area before engaging them, he will have done much toward destroying the opposing commander's ability to employ artillery fire effectively. He will also most likely force the opposing commander to deploy his forces for a deliberate assault instead of attempting an attack from the march.

In fact, it may be advisable for the defending commander to allow the Soviet reconnaissance elements to drive through or past his concealed defensive positions to be engaged by deeper defensive positions or mobile hunter-killer teams while he waits in place to surprise the Soviet main body.

As for constructing defensive sites, FM 90-10 provides excellent guidance. If possible, the main defensive site should be placed in a ferroconcrete structure and its embrasures plugged with sandbags or covered with wire mesh. Heavy machinegun and RPG-7 fires are of limited value against ferroconcrete buildings while they will readily penetrate brick, soft stone, and wooden buildings. "Mouse holes" should be used for firing positions. (Soviet troops are trained to fire at open doors and windows and to attack and plug them during the assault.)

All defensive positions need to be mutually supporting and manned by at least two men, and soldiers cannot be hesitant about firing their weapons. In addition to firing at targets outside buildings, they should be trained to engage enemy troops inside buildings by firing through interior walls, ceilings, and floors. Unfortunately, because the M16 cartridge has limited penetrating power, most of this firing will have to be done by M60 machinegunners. (Infantry leaders should read or reread S.L.A. Marshall's *Men Against Fire*.)



Defensive positions should not be oriented solely toward an attack from the front. Multiple supporting positions should be planned, because the Soviet forces will try to hold such positions in place and take their objective from the flank or rear.

Soviet forces can be expected to employ large amounts of smoke — particularly in a deliberate attack. Defending troops therefore need to be taught to employ claymores and small arms fire through smoke cover. As in night firing, soldiers who are firing through smoke tend to fire high, so defensive positions need to be constructed to ensure grazing fire.

Selective rubbleing and preplanned killing zones should be used to channel and destroy attacking forces. Fougasse and multiple claymore mines will prove very effective for this task. (The wires on the claymore should be buried so that they will not be cut by artillery fire.) M24 off-route antitank mines should be emplaced so as to strike just above the height of tank road wheels.

Doors should be locked and blocked. Although Soviet doctrine calls for entering buildings through gaps blown in the walls, direct fire will not cut the metal reinforcing rods in concrete buildings. Furthermore, Soviet trainers do not allow troops to routinely blow gaps in scarce MOUT training facilities any more than U.S. trainers do. Therefore, Soviet soldiers train by entering open doors and windows. (A locked and blocked door could be a nasty surprise for the first soldier to encounter it!)

Evacuation routes and signals should be planned and should include the use of messengers, the local telephone system, and wire communications. Subterranean evacuation and resupply routes should be used whenever possible. At the same time, subways, sewers, utility tunnels, and drainage systems in the Soviets' advance route must be blocked and defended, because the Soviets will use them in a deliberate assault whenever they can.

Some way of fighting fires should be incorporated into defensive positions. Wet blankets should be placed around crew-served weapon positions as protection from flame.

## ARTILLERY FIRE

Plans should also be made to defend against enemy artillery. The Soviets' artillery doctrine is modified when applied to urban terrain. A large part of their artillery fire will be direct lay, and their artillery preparatory fires will be more limited to avoid creating obstacles. In defending against these fires, our commanders might use the Soviets' own experience from World War II, when they learned to use underground structures to protect their combat equipment and personnel. During the German artillery preparatory fires, for example, most Soviet soldiers would move rapidly with their weapons to basement shelters or to trench systems dug behind their buildings and well out of danger from collapsing rubble. Designated personnel and standby weapons would remain in place in specially prepared shelters. When the German

artillery fires were shifted, Soviet commanders would quickly move their troops back to their places to repulse the ground attack.

In order to add to the confusion of battle, defending forces should remove or relocate street name signs, building numbers, and traffic signs. (Although the Soviet Army has excellent maps, they are classified and Soviet squad leaders don't see or use them enough. For combat on urban terrain Soviet forces will therefore rely heavily on guide books and commercial maps of built-up areas in Western Europe.)

## FIRING POSITIONS

As for crew-served weapon positions, most of the defender's machineguns need to be employed at ground level with interlocking fields of fire at grazing height. Alternate firing positions, aiming stakes, and limit-of-sector stakes are essential. Most firing positions should be located inside basements and on first floors, with "mouse holes" for firing. (FM 90-10 provides excellent guidance on constructing firing positions.) Some machineguns may need to be employed on rooftops, along with Redeyes or Stingers, in an antiaircraft role. Depending on the tactical situation, the commander may put a light machinegun in the upper stories of a multi-storied building as a roving gun to engage targets of opportunity.

Antitank weapons normally have to be employed outside buildings since the backblast of the TOW, the Dragon, and the LAW usually prohibits their employment inside. Since most antitank shots will be at short range, and since both the TOW and the Dragon have a minimum effective range in which the gunner must acquire the missile, the LAW will be the primary antitank weapon in urban fighting. And as we learned in Vietnam, squad volley fire is the safest and most effective way to use the LAW.

TOWs and Dragons should be employed on the flanks of the urban area to help counter an expected envelopment action. The use of the TOW against the Mi-24 armored helicopter gunship should also be considered. It is well to keep in mind that when the Soviets attempt an attack directly from the march, they are vulnerable to interdiction on their flanks. Antiarmor hunter-killer teams, moving on routes parallel to the attack, should enjoy considerable success if they are employed in a logical and controlled manner.

TOWs and Dragons can be positioned along boulevards for long range shots against tanks, but the bulk of the antitank fighting will be done with other tanks, LAWs, mines, and M24 off-route antitank launch mines. (French MK-1 horizontal action antitank mines are also effective if they are available.)

Unit S-4s should try to obtain 90mm recoilless rifles and 3.5-inch rocket launchers for MOUT fighting from within buildings (as the Marines learned in Hue). Anti-tank weapons employed from above against the top armor of tanks should also be quite effective.



Antitank positions should not be disclosed prematurely. Tanks and artillery pieces in the direct fire and assault roles will figure prominently in the Soviet organization for combat, and Soviet reconnaissance forces will continually strive to discover antitank positions. These positions must therefore be moved once they have been discovered.

## RESERVES

A mobile reserve will be needed for defensive operations, particularly if Soviet forces should launch an air-mobile assault or a flank or rear attack. The reserve can also be used in its classic role of blocking penetrations, but it should not be prepositioned so close to the main defensive positions as to interfere with the defense's flexibility and mobility.

The defending commander should employ long range artillery fire against Soviet forces approaching the urban area to create confusion in the march column, slow its progress, and force the attacker to deploy his forces. And within the city, artillery and, particularly, mortar fire can be used to keep armored forces buttoned up and to separate the dismounted riflemen from their armor.

The movement of armored vehicles in a city can be a problem. The vehicles are often restricted to movement along streets — where they are more exposed to enemy fire. Accordingly, consideration should be given to moving tanks and tracks through buildings when possible. Factories, warehouses, and many large stores can be

driven through, but the buildings should be checked first, of course. (Tracked vehicles should not drive through buildings with basements as this tends to convert a tank into a pillbox.)

As mentioned, Soviet reconnaissance elements will try to determine the location of crew-served weapon positions, particularly those with antiarmor weapons, and will try to neutralize and destroy them early in the attack. Accordingly, the defending soldiers must observe fire discipline, employing only the crew-served weapons that are necessary for eliminating select targets and then shifting those weapons to alternate sites.

Command, control, and communication problems will plague Soviet forces in any battle on urban terrain. Intelligence efforts and combat patrols should therefore concentrate on compounding these problems by neutralizing command posts.

During the hasty attack, Soviet command vehicles can be identified by their multiple or special antennas, their lack of anti-aircraft armament, and the proximity of the chemical reconnaissance, artillery, and air defense artillery command vehicles. During preparations for the deliberate attack, Soviet battalion command posts will normally be located within 200 meters of the front units in places from which direct observation is possible (in multi-storied buildings, for example).

Defending troops need to be taught to don chemical masks in case the Soviet forces decide to employ chemicals. The Soviets could use a mixture of HE and chemical munitions for tactical surprise, or an agent such as HCN to rapidly neutralize a strongpoint. HCN can be delivered



effectively by Soviet BM-21 multiple rocket launcher units and, in an advance to contact, can be available within an hour after the reconnaissance elements make their initial contact. The lethality and rapid dispersal of HCN makes it ideal for use on urban defensive positions.

Soviet forces will probably employ flamethrowers as well, up to two per squad in their assault group. The Soviet LPO-50 flamethrower has a maximum effective range of 50 meters and a strong recoil that makes the prone firing position the only accurate one to use with it. Defensive planning should therefore identify potential flamethrower positions and ensure that effective fire can be brought to bear on them. The Soviets also use crew-served TPO-50 flamethrowers (with a maximum effective range of 150 meters) and flamethrower tanks.

The defenders can use flame warfare, too, through fougasse, the US M9E1-7 flamethrower, and the M202A2 flash. (The backblast area of the M202A2 prohibits its use inside most buildings, however.)

Finally, breakout and linkup planning should begin as soon as the defensive plan has been issued, because the Soviets will try to envelop the urban defending forces, sealing the city off to prevent their withdrawal or reinforcement.

To effect an envelopment, the Soviets may use ground, airborne, or airmobile forces. Tanks, TOWs, and Dragons can be used for flanking shots against ground forces that are trying to bypass the urban area. If it is available, a tank-heavy force can be prepositioned at the logical juncture beyond the urban area.

The commander should be aware that Soviet airborne forces, once they have been dropped, are mechanized — BDMs and ASU 85s will accompany any airdrop to the rear of the urban area. Airmobile forces, however, normally consist of regular motorized rifle soldiers without their APCs.

The logistical demands of urban warfare can be heavy for both sides; large quantities of cartridges, antitank and antipersonnel grenades, artillery projectiles, smoke rounds, signaling equipment, shaped charges, bangalore torpedoes, antitank and antipersonnel mines, grapples, assault ladders, and barrier materials will have to be

pushed forward. Food and water resupply and medical evacuation efforts will prove difficult.

The Soviet logistical system lacks the manpower to support this kind of battle and will be hard pressed to maintain its forward supply dumps. An immediate counterattack following heavy fighting may be easier because of the Soviets' resupply problems.

Soviet attacks have been stopped by a strategically placed field kitchen. (Although Soviet troops are prohibited from consuming enemy food or drink, including alcohol, without medical clearance, experience has shown that discipline may break down after the capture of food and drink.) Indeed, the German army of World War II sometimes deliberately gave ground to the Soviets in selected sectors of the front. In those sectors, the Germans would "abandon" field kitchens with prepared meals and register preplanned artillery strikes on them. Such tactics often proved quite effective.

The defense of urban terrain will be one of the most difficult combat tasks an infantry unit will be called on to undertake on the contemporary battlefield. The unit's success or failure ultimately will be decided at the small unit level. House-to-house fighting will be a squad and team leaders' battle, and this is the level at which leadership initiative is weakest in the Soviet forces. If enough confusion can be created, Soviet attacks may falter or fail completely when the battle reaches the squad level.

Well thought out plans and battle drills, coupled with realistic MOUT training, will go far toward improving our ability to win in this environment.



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# Infantry In Action



## D-DAY: Forty Years Plus One

Major General Albert H. Smith, Jr.  
United States Army (Retired)

*EDITOR'S NOTE: The following article is a selective condensation of the two-hour Operation OVERLORD lecture that General Smith has presented to officer advanced course classes at various service schools. It focuses on the*

*16th Infantry Regiment's assault on Omaha Beach. The lecture itself also covers the plans and preparations the higher Allied headquarters made for the operation, plus the fighting on D-Day in the other assault landing areas.*

My subject matter may be forty years old, but I believe its lessons are applicable to today's Army, because small unit actions have not changed that much. Individuals, squads, platoons, and companies can emulate their World War II counterparts in training to overcome enemy defenses. The qualities of small unit leadership are still current. Initiative and good old American ingenuity remain strong weapons to use against a determined enemy. And while the overall D-Day story was told in this magazine in its May-June 1984 issue, I believe the story needs to be told again, particularly from a more personal viewpoint and with stress on the magnificent role U.S. infantrymen played in getting ashore in France on 6 June 1944 and in staying there.

I was a 25-year old captain on that day, serving as executive officer of the 1st Battalion, 16th Infantry Regiment, 1st Infantry Division. The battalion commander was Major Ed Driscoll.

The 16th Infantry, commanded by Colonel George Taylor, was one of the division's two assault regiments scheduled to land at daybreak on 6 June 1944 on Omaha Beach. The other regiment was the 116th Infantry from the 29th Infantry Division, attached to the 1st Division for the assault.

In June 1944 the 16th Infantry was a combat hardened outfit. It had trained in England and Scotland between August and October 1942 and had been sent to the Mediterranean area, where it had taken part in two invasions

and three campaigns — first in northwest Africa and then in Sicily.

The division had returned to England in December 1943. There, during the next five months, it took part in a tough training program and in a series of invasion rehearsals to sharpen its fighting spirit. By early June, the division was ready for what lay ahead.

The 29th Infantry Division was also well trained. It had been in England since the fall of 1942 and had been subjected to a broad range of hard training, including several realistic landing exercises. But it had not been in combat, and its soldiers had not heard a shot fired in anger.

Across the English Channel, meanwhile, in the German defensive scheme of things, so-called static divisions (with no motor transportation) were charged with the coastal defense mission and with defending the fortified ports. Many of the soldiers assigned to these static divisions were Russians, Poles, and other former enemy soldiers who had chosen to serve with the German Army rather than go to prisoner-of-war camps. These were mixed with older German soldiers, many of whom had survived bitter fighting on the Russian front.

The mobile German infantry units and the panzer divisions were another story. Their ranks were filled with battle-wise veterans and fanatic storm troopers.

Those of us who had faced the Afrika Corps in Tunisia were well aware of the individual German soldier's fighting ability and tenacity. As we were to discover again in



Normandy, the German soldiers were still full of fight and had most of the tools they needed to give us a hard time.

Fortunately for us, there was not the same unity of command on the German side as there was on ours. Our commanders knew much of what the Germans were doing in Normandy — our intelligence people, having broken the German Ultra code system, could read communications that passed between the various levels of command. But the German intelligence organization by this time was in shambles, and German commanders were essentially in the dark concerning our plans, dispositions, and capabilities.

On 7 May 1944 the 1st Division was sent to “concentration camps” in the south of England near the harbors from which its units would embark for Normandy. These were referred to as “holding areas” by our higher headquarters, but they were really austere tent camps surrounded by barbed wire and guarded by theater-level military police units.

On 3 June the situation changed for the better when the 16th Infantry’s battalions embarked on three transports — the *Samuel Chase*, the *Henrico*, and the *Empire Anvil*. My battalion, together with the regimental headquarters, was aboard the *Chase*, an exceptionally clean ship manned by U.S. Coast Guard personnel and filled with the kind of stateside food we had missed so much during the preceding months.

For the first time we were briefed on our exact assault roles. An excellent sand table had been prepared to show all the details of the Normandy coast, and most of the German defensive positions were pinpointed for us.

The plan for Operation *Neptune* — the amphibious assault phase of Operation *Overlord*, which was the overall plan for the invasion of northwest Europe — called for U.S. forces to land on Utah and Omaha Beaches and for British and Canadian units to land on Gold, Juno, and Sword Beaches. The U.S. 82nd and 101st Airborne Divisions were to drop inland from Utah Beach while the British 6th Airborne Division was to drop south of Sword Beach (see Map 1).

Simply put, OVERLORD strategy was to gain a toehold

in Normandy; then to build up forces and supplies in the lodgement area; and, finally, to break out of the lodgement area. The early capture of Cherbourg and the establishment of artificial harbors were essential to the operation.

The 16th Infantry Regiment’s plan called for its 2d and 3d Battalions to land on the Easy Red and Fox Green sectors of Omaha Beach respectively, and for its 1st Battalion to follow the 2d Battalion onto Easy Red. Colonel Taylor, our regimental commander, had the following to say about our assault: “The first six hours will be the toughest. That is the period during which we will be the weakest. But we’ve got to open the door. Somebody has to lead the way — and if we fail, well, then the troops behind us will do the job. They’ll just keep throwing stuff onto the beaches until something breaks.”

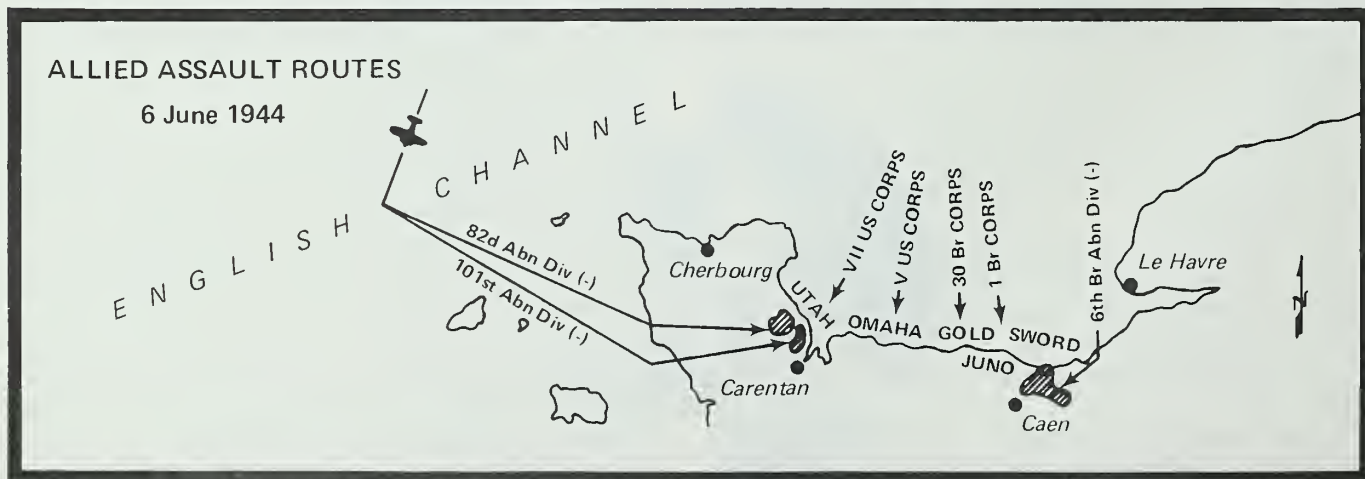
Omaha Beach was a three-mile, crescent-shaped sand beach backed by high and commanding bluffs that ranged in height from 100 to 170 feet. Rocky cliffs sealed off both ends of the beach. Landing at low tide, a soldier would have several hundred yards of rather firm footing before encountering a narrow strip of difficult soft sand leading to a seawall or shingle (loose stone) embankment. On the other side of the embankment he would find a beach road, beyond which was a swampy beach flat, several hundred yards deep, that reached to the base of the bluffs.

The beach exits were essentially deep north-south draws. There were also smaller north-south ravines that could provide some defilade protection from most of the German weapons.

The German defenses were expected to take full advantage of the bluffs, especially on the east and west sides of the draws. German flanking fire was possible against landing craft and the assault troops from emplacements that could not be seen directly from the north.

We knew that daylight on D-Day would last from 0600 to about 2200, some 16 hours of good visibility. We also knew that all of the landing areas might be affected by an easterly tide.

For the assault phase of the operation, each of our assault rifle companies had been organized into five assault



MAP 1

sections instead of its normal three rifle platoons and one weapons platoon. Each section — 1 officer and 29 soldiers — included rifle teams and wire-cutting, bazooka, flame-thrower, automatic rifle, 60mm mortar, and demolition teams. (During the landing and the subsequent attacks on German pillboxes and gun emplacements, this organization proved quite effective. The one planning mistake was the inclusion of the 70-pound flamethrowers, which never got across the beach. In fact, most of the men carrying them sank when the teams hit the water.)

On board the *Chase*, weapons were cleaned and the assault sections repeatedly inspected and briefed. Everything possible was done to ensure success.

Stormy weather on the 4th and 5th caused a 24-hour delay. We prepared to sail on 4 June but were soon back at anchor. Then, during the night of 5-6 June conditions improved, if only marginally, and we sailed for France. The sea was classed as moderate, with waves ranging from four to eight feet. Winds from the northwest were gusty, often up to 20 miles per hour.

Our sea passage from Weymouth harbor to the transport area 12 miles off Omaha Beach was routine and relatively smooth. After the evening meal and brief final meetings, most of us took to our bunks. Colonel Taylor stopped by our cabin — I was bunking with Ed Driscoll — to wish us good luck. No “pep talk” was needed.

I don’t remember how long we slept, but Ed and I were awake at 0200 according to plan. After last-minute checks with the company commanders, we went to the mess at 0300 for breakfast. The menu was complete, and we could have anything we wanted. (I ate steak and eggs, with pancakes on the side.) The mess stewards were particularly kind and solicitous that morning, and I guess they were glad they would remain aboard.

Our troops were rail-loaded into LCVPs (landing craft, vehicle and personnel). Crossing a narrow gangplank into a waiting LCPV was a far better procedure than climbing down cargo nets. For the record, we hit the English Channel at about 0430.

An LCPV is certainly no sleek motor launch. I think of it as an oversized metal shoe box. The World War II LCPV was 45 feet long and 14 feet wide and held 30 infantrymen and their assault equipment. It had a steel ramp instead of a sharp bow. In our LCPV, we had 36 headquarters personnel.

With a speed of somewhere around five knots through four- to eight-foot waves, it would take our LCPV almost three hours to go from our transport area to the beach. This included the time needed for the various assembly maneuvers. An ordinary seaman was in charge of this shoe box. A dozen of these low-ranking skippers answered to a Navy lieutenant, who was responsible for maintaining us on the correct ship-to-shore course.

Our LCPV had not been in the water 10 minutes before we were soaking wet and cold. Most of us were also seasick. These miserable conditions persisted for the next 12 miles.

Finally, Omaha Beach and its bluffs were visible to

those of us in the front of the craft. There was some distant noise, but we were not aware of any heavy gunfire. Some smoke from the beach flat grasses reduced our visibility off Easy Red beach. At that time everything seemed to be going according to plan.

When we were about 500 yards offshore, though, I began to realize we were in trouble. Because of the numerous beach obstacles, we now had five LCVPs going in abreast and very close together. The intervals between the craft could be measured in inches rather than in the tens of yards our amphibious doctrine called for.

As its bottom scraped a sand bar, our LCPV shuddered to a stop. Almost simultaneously German machinegun fire hit the steel ramp. I yelled to the seaman not to drop the ramp and, for once, the Navy obeyed the Army. Then, as the German machinegunners swept down the line of landing craft, I called for the ramp to be dropped. All but two of us raced safely into waist-deep water; the last two men were hit before they could leave the craft.

The beach bottom was firm under our feet, but the going was tough because of the surf and the heavy loads we were carrying. Our wet woolen clothing didn’t help our mobility, either.

The closer we got to the beach line the more certain I became that the landing was a disaster. Dead and wounded from the first waves were everywhere. There was little or no firing from our troops. On the other hand, German machineguns, mortars, and artillery pieces were laying down some of the heaviest fire I had ever experienced.

Unknown to us, regiments of the 352d Infantry Division (part of Rommel’s reserve) were conducting anti-invasion maneuvers in the Omaha Beach area on 5-6 June. Their presence more than doubled the number of defenders our amphibious assault had to overcome.

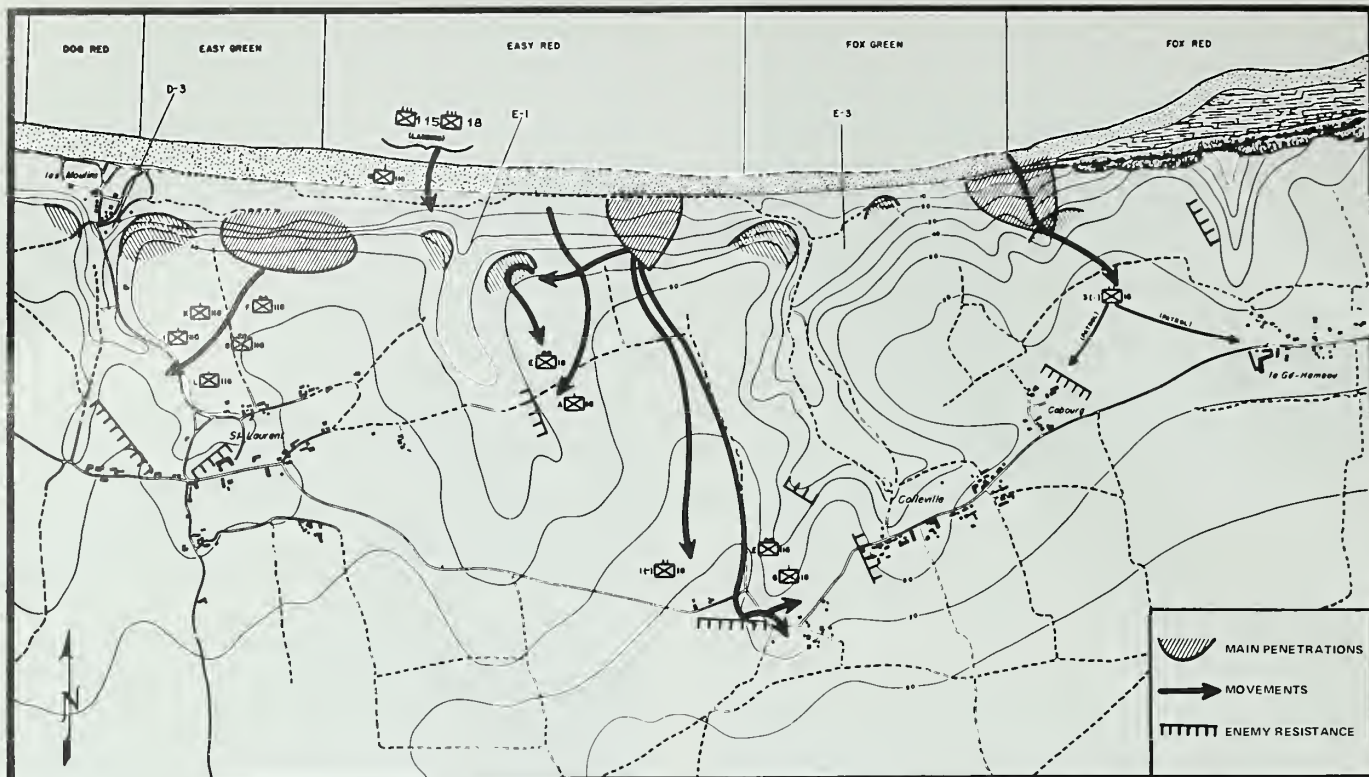
Somehow, Captain Hank Hangsterfer, the headquarters company commander, and I were able to get our half of the battalion headquarters across the soft sand and into the defilade afforded by the shingle embankment. I don’t recall any casualties. Then, seeing some movement off the beach to our east, we began to move in that direction.

## TEACHINGS

Enroute we ran into Brigadier General Willard Wyman, our assistant division commander, who had landed minutes earlier and was trying to organize the scattered forces. We had been taught at the Infantry School that a combination of fire and movement was the best way to advance against a dug-in enemy. But at this hour and in this situation — it was about 0800 — when General Wyman asked whether we were advancing by fire and movement I answered, “Yes, Sir. They’re firing and we’re moving.”

At 0950, General Wyman reported that there were too many vehicles on the beach and asked for more combat troops to be sent in immediately. Shortly thereafter, the 115th Infantry was sent in to reinforce the 116th, and the





MAP 2

18th Infantry was landed near one of the major exits and was ordered to pass through and take over the missions of the 16th.

As we now know, in the 2nd Battalion's sector, the assault sections of Companies E and F were badly scattered and intermingled with men from Company E, 116th Infantry, who had landed several thousand yards east of their designated beach. The initial casualties in these units were 50 percent or more. The lead echelon of the 16th Infantry's headquarters was wiped out, and the regimental executive officer and S-4 were among those killed on the beach that day (see Map 2).

Only two 2d Battalion units remained relatively intact as they crossed the beach and headed toward the slopes leading to Colleville. The 1st Section of Company E, led by Second Lieutenant John Spalding, blew a gap in the wire above the shingle, made its way past a stone beach-house, and then was held up by minefields at the base of the bluffs. It had lost only three men up to this point.

Landing at 0700, Company G, commanded by Captain Joe Dawson, crossed the beach and reached the embankment in good order. The company's machineguns, set up behind the rocks, found no targets until our LCVPs drew enemy fire. Then, as Company G's supporting weapons built up a base of fire, a few men from each assault section blew gaps in the extensive barbed wire obstacles beyond the shingle.

When Company G's advance elements reached the bluffs, they met Lieutenant Spalding's section. Dawson and Spalding agreed that Spalding's section would operate on Company G's right. Both units now began sending men

through the minefields. The path for Company G's soldiers led over the dead bodies of two soldiers from the first wave who had tried to get through the minefields.

Bothered more by the mines than by the German fire, Dawson and one of his sergeants went on ahead to scout out a small draw. Halfway up the slope an enemy machinegun forced the two to take cover. Dawson sent the sergeant back to bring up the company while he crawled toward the German position. Circling to his left, he got within 30 feet of the gun position before the Germans spotted him and tried to swing the gun around in his direction. But Dawson had time to throw several fragmentation grenades, which eliminated the crew. This opened the way up the draw for his company and for many other units of the division.

Meanwhile, Spalding's section was beginning to work its way up the bluffs, helped by covering fire from Company G. But in working its way past a German machinegun position, the section lost three more men. Eventually, the gun was captured, and the lone soldier in the position, who turned out to be Polish, told Spalding that 16 Germans were in some trenches behind the position. When Spalding and his men reached those trenches, though, the German soldiers were gone. Spalding turned west along the crest of the bluff, losing contact with Company G as that unit headed south.

Moving through the hedgerowed fields and wooded areas, Spalding's section came onto the rear of the German strongpoint guarding the large draw that led to the beach; it was marked E-1 on his map. Spalding's attack caught the defenders by surprise, and in two hours of confused fighting Spalding's men managed to neutralize the

strongpoint and take 21 prisoners in the process without losing a man.

By noon, Captain Dawson's Company G, now reinforced by Spalding's section and other 2d Battalion elements, had seized most of Colleville. That rapid, one-mile-deep penetration of the German defenses was the key to our ultimate D-Day success at Omaha Beach.

In the 3d Battalion's area, Company L landed on Fox Red instead of Fox Green at 0700, some 30 minutes behind schedule. (It was the only one of the division's eight rifle companies in the assault wave that would be ready to operate as a unit after crossing the beach.) The landing craft touched down just short of several rows of underwater obstacles, and the soldiers started wading ashore, crossing 200 yards of tidal flat under heavy German fire. This brought the company into the comparative safety of a vertical cliff, where the company's remaining leaders quickly reorganized the assault sections.

One of the company's assault sections never made it to shore because its landing craft had capsized in the heavy seas shortly after leaving the transport that had brought it to France. Other losses had reduced the company's strength to 123, but it began to push inland from the beach around the west end of the cliff. The company commander was hit and seriously wounded and Lieutenant Bob Cutler, the executive officer, assumed command.

The company's 2d Assault Section, led by Lieutenant Jimmie Monteith, was sent to push up a small draw and knock out pillboxes in a German strongpoint. The 3d Section advanced on Monteith's right, while the 5th Section followed. The 1st Section passed around the right flank and made contact with elements of the 116th Infantry. Together, these latter units assaulted another German strongpoint that had been delaying the advance inland.

The other three assault sections and the company head-

quarters pushed forward as planned. Light machineguns were used to cover the advance, and Lieutenant Monteith enlisted the support of two tanks. At the head of the draw, the 2d Section took up a hasty defensive position and covered the advance of the 5th Section and the company headquarters. Two open emplacements had been silenced by rifle and automatic rifle fire during the advance up the draw. The 3d Section came on line with the 2d, and the company set up a perimeter defense on the high ground.

When Captain Kim Richmond of Company I reached Fox Green beach at 0800, he found himself the senior commander present. The battalion commander and his headquarters elements had been landed far to the west and could not rejoin their troops until much later in the day.

Richmond began to reorganize the troops he could find on the beach and started them forward to join forces with Company L on the high ground, which they did shortly after 0900.

One young infantryman, a Private First Class Milander, contributed mightily without firing a shot. After Company L had fought its way off the beaches, Milander led a three-man reconnaissance patrol southwest to the fortified village of Cabourg. The threesome failed to return because, as we later learned, a platoon of German defenders quickly surrounded them. During the night, however, Milander somehow talked the Germans into surrendering and took them prisoner. Next morning, our troops who were holding the town of Colleville cheered three weary GIs bringing in 52 of Hitler's finest. They were also happy that Cabourg had fallen without a fight or another casualty.

At about 1300 a German force of about one platoon of soldiers supported by light mortars and machineguns attacked the left flank and rear of the 3rd Battalion's perimeter. Lieutenant Monteith was killed while exposing



Under the cliffs — Fox Red — Omaha Beach — 6 June 1944.



himself to direct fire against the German force. (He was posthumously awarded the Medal of Honor for his actions that day.)

The German attack was beaten off, and shortly afterward, Captain Richmond sent a strong patrol to Hameau. Then he followed with the remainder of his force, which totaled 104 men — 70 from Company L and the others from Companies I, K, and M. German sniper and machinegun fire harassed the advance but did not slow its progress. The 100-man battalion secured Hameau — and the left flank of the Division Beachhead — by 1600 and successfully defended it through the night.

In our area, meanwhile, we could see that our troops were advancing across the beach flat and up the slopes. Near the top of the bluffs on a small, flat, grassy knoll alongside a dirt road, I enjoyed the most pleasant five-minute break of my military career. And this is where I established our first command post that D-Day morning. I had the remnants of Company A under my control — only two of its assault sections were still operational — and I was using them both as CP and as flank security. I did not know where Ed Driscoll was, or even whether he was still alive. As it turned out, he was with the lead elements of Company C, closely following the 2d Battalion's advance toward Colleville. He also had taken Company B under his control.

Experience and instinct warned me of the threat posed by the German forces in St. Laurent. In the past, the Germans had always counterattacked after losing key terrain. An attack from the west now would hit our advancing forces in the flank and rear and would seriously jeopardize our still somewhat precarious position.

Accordingly, I ordered the acting commander of Company A to attack west toward St. Laurent with what was left of his company. If he encountered the enemy in strength, he was to go over to the defensive and be prepared to block any German counterattack that might come from the direction of St. Laurent.

After an advance of 600 to 800 yards, he did run into strong German fortifications that he could not overcome. He was forced to go on the defensive.

About this time a telephone line reached me from regimental headquarters, which was located at the base of the bluffs. When Colonel Taylor asked about our situation, and what he could do to help, I told him we could use tanks, and the sooner, the better. He promised to do everything possible because he, too, expected an early counterattack.

From that point on, although I can recall some important events, my feel for their exact timing is gone.

Following the establishment of our first CP and the advance by Company A toward St. Laurent, we tested some German defenses south of the hedgerow just across the dirt road that ran by our location. Several rifle teams tried to advance across the hedgerow but received heavy small arms fire from three directions. Somewhat later, a helmet that was raised above the vegetation drew immediate sniper fire. It was not difficult for me to conclude that the

Germans were in some strength just to the south — in fact, right next door.

In the late afternoon, therefore, I was happy to see Lieutenant Colonel Joe Sisson and his 3d Battalion, 18th Infantry approach our location. It was great to know that reinforcements were at hand. I passed along what little I knew about the friendly and enemy dispositions.

Colonel Sisson deployed his two lead companies from east to west along our dirt road; the men fixed their bayonets, and they then charged south toward the hedgerow from which the German fire had been coming. That bayonet charge was made sometime around 1700, to the best of my recollection, and while the German fire was heavy at first it soon faded as the attacking companies moved farther south to other hedgerows and fields.

As darkness approached, we were all numb. It had been a long two days, with only a few hours of sleep the previous night. Maybe numb isn't the word — I felt like a zombie.

Curled up against a hedgerow, a lieutenant and I shared the warmth of his raincoat. Our clothes were still damp and the temperature had dropped into the 50s. But we knew the Allies had it made — that the German defenses had been breached. The loss of good buddies and the horrors of the day made sleep almost impossible. But to have survived was good fortune beyond belief.

## EPILOGUE

By mid-June our 1st Division's advance had reached Caumont, some 23 miles inland from Omaha Beach.

A week later, the total number of Allied troops ashore was more than 600,000, and the number of vehicles that had been landed was almost 100,000. By then, two key requirements of the OVERLORD strategy had been fulfilled: we held a strong lodgement area in Normandy, and our build up was almost complete. All that remained was to penetrate the rest of the German defenses and to break out. That phase of the war started on 25 July and, by the end of August, the Allied forces were beyond Paris and well on their way to the German border.

For the Allied forces, the dash across France was the most exciting period of World War II in Europe. But I hope we shall always remember that our victory in Europe was made possible by those Allied soldiers who fought so hard and strenuously on and behind the Normandy beaches on 6 June 1944. That was the beginning of the end for Nazi Germany.



Major General Albert H. Smith, Jr., was commissioned a second lieutenant of Infantry in 1940 and participated in eight campaigns with the 1st Infantry Division in the European Theater in World War II. In addition to the D-Day invasion of Normandy, this service included the invasions of North Africa and Sicily. He served with the 1st Division again in Vietnam, as assistant division commander and as acting division commander.

# TRAINING NOTES



## MOUT and the Inter-Active Video Disc

STAFF ANTHONY dePASS, AUSTRALIAN ARMY

The growing urbanization of areas in which the U.S. Army is likely to operate in the future emphasizes the importance of realistic training in military operations on urban terrain (MOUT). Recent events in Grenada, Lebanon, El Salvador, and Nicaragua also point to the need for our soldiers and leaders to be well-trained to fight an urban battle.

For many years, students attending the Infantry Officer Basic Course and the Advanced Noncommissioned Officer Course at the Infantry School have had their leadership and tactical abilities tested during MOUT training. This training, with the aid of the Inter-Active Video Disc (IAVD) system, can now be taken one step further.

The MOUT IAVD introduces the student to the tactical considerations that are unique to urban terrain before he actually conducts training on a MOUT site. (It is not in any way intended to replace either classroom instruction or "hands-on" training.) The advantages of this system are substantial, including savings in training time and resources, not to mention savings in precious training dollars.

The IAVD system consists of a computer, a video disc player, and two television monitors. The software used with it is a computer program

and a video disc. The MOUT disc, which contains thousands of views of the selected urban area, allows the student to "see the battlefield" through the use of surrogate travel over the area.

In effect, the student gets a panoramic view of a town or village as if he were in a helicopter flying at various altitudes. Using a control box with a video game "joy stick" to control the direction and speed of his movement, he can hover at locations of his choice to get more in-depth views. The com-

puter allows a student to travel at will through an area as he uses the control box to select the video disc views he wants displayed.

He can travel through his sector looking at it from inside and out, leaving no stone unturned. He can get an on-the-ground view up every street from every direction, as well as views of each building's exterior construction. He can enter buildings at random and move from floor to floor or room to room. He can examine every closet, nook, and cranny within a building.



Instructor explains how to use the IAVD.



At the same time he can observe the terrain around the buildings from inside them by looking out the windows, once again, with the same perspective as if he were actually in those buildings.

The current defensive scenario used with the MOUT IAVD takes place in western Europe. This scenario puts the student in the northern half of a fictional German village called Bonnlund where he is to defend against an enemy attack on that village from the north.

So that he can develop a logical course of action and refine it into a final defensive plan, the student is given 12 training objectives to accomplish after he completes his ground and aerial reconnaissance. These objectives all relate to what he, as a platoon leader, would normally consider when developing a course of action and formulating a tentative plan for a platoon defense of an urban area:

- Identify key terrain.
- Select locations for observation posts.
- Select positions for M60 machine-guns.
- Select positions for Dragons.
- Assign squad sectors.

• Identify buildings that require fortification.

- Identify coordination requirements with adjacent units.
- Develop an obstacle plan.
- Select appropriate locations for a squad-sized antiarmor ambush.
- Develop a communications plan.
- Prepare a platoon sector sketch.
- Check target reference points and direct fire assignments.

At the start of the computer program, a series of operation instructions is used to guide the student through the program. Once he is confident of his ability to operate the control box, he proceeds with the tasks of conducting his reconnaissance and planning his platoon defense. He is allowed two hours to complete these tasks.

Then, having developed a tentative plan, the student arrives at the "testing section" of the IAVD. In this section, he must respond to both doctrinal and tactical questions on the 12 training objectives that he was given at the start of the program. As he proceeds through the questions, the student responds by pressing the appropriate button on his control box to indicate the answer he has selected.

The computer, through a display on one of the two monitors, tells him whether he is right or wrong. If his response is incorrect, the student is provided with the correct or best answer to the question. At the completion of this section the student is given a percentage score on his overall solution.

The development of a platoon defensive plan for a MOUT situation is only one use of the IAVD system. This technology can be used at other levels of command and for other phases of combat operations. Mounted land navigation, for example, can be easily adapted to the IAVD.

The Training and Doctrine Command is now evaluating this technology with a view to providing the IAVD system to the Army's major units. Although the IAVD does not replace on-the-ground practical exercises, it does help prepare leaders better to participate in those exercises.

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Staff Anthony dePass, Australian Army, is the Australian Army Exchange Noncommissioned Officer at the U.S. Army Infantry School and the School's principal instructor in platoon level military operations on urban terrain. He will return home soon to serve as an instructor with the Australian Infantry School.

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# ITV Combat Qualification Course

**CAPTAIN JAMES W. TOMPKINS, JR.**  
**LIEUTENANT HARRY E. MORNSTON**

The 21 improved TOW vehicles (ITVs) in a mechanized infantry battalion represent an extremely potent antiarmor force and one that requires a dynamic training program.

In an effort to increase the combat readiness of its assigned ITV sections,

the Combat Support Company, 2d Battalion (Mechanized), 34th Infantry, Fort Stewart, Georgia, devised and conducted a section qualification course. The objectives were to develop a program that would challenge and measure the abilities of all section per-

sonnel to exercise the full combat capabilities of the vehicle and to use all available training devices for realism and economy.

The course was conducted in two phases — Gunnery and Section Qualification — using training guidelines

from the ITV Transition Trainers Course and ST 23-34-I, "Interim TOW Training Plan," dated March 1981.

The gunnery phase was conducted using Multiple Integrated Laser Engagement System (MILES) equipment instead of the M70 trainer, because MILES would allow the qualification to be more realistic in terms of range and targets. (The company's methodology was prompted by its experience at the National Training Center and by identified shortfalls of the M70 trainer as stated in the Interim TOW Training Plan.) The standard 10-round qualification and 10-round verification were used. The qualification consisted of MILES-equipped armored vehicles moving laterally to the gunner's front at distances in excess of 2,300 meters; the verification consisted of the same armored targets at a variety of speeds and presentations (frontal, oblique, and evasive). By using MILES, the unit achieved higher scores with fewer equipment failures and better gunner interest.

The second phase of the qualification course also relied on MILES equipment to evaluate gunnery and squad and section skills. In this phase, the unit used MILES-equipped armored vehicles and also automatic tank target systems (ATTSs) with MILES M113 kits attached. The moving vehicles measured tracking ability, and the ATTSs permitted multiple target presentations, which evaluated target acquisition, target selection, and section fire control.

The use of the MILES-equipped ATTS saved on personnel and equipment (both fuel and associated Class IX parts). And it allowed the presentation of threats as specified in Additional Task 11, TOW Section Combat Qualification Course, and in ST 23-34-I.

It was relatively simple to adapt the MILES M113 kit to the ATTS. One light sensor belt was attached to the plywood silhouette with the MILES control box and target-kill indicator wired in circuit and placed on top of the ATTS mechanism. The MILES kill-indicator light was wired to a

EVALUATION TASK LIST		
ITV Section Combat Qualification Course		
<u>Tasks Performed in Assembly Area</u>		
• Evaluate mission.	3-I-1-1	ARTEP 71-2
• Form tentative plan.	3-I-1-2	ARTEP 71-2
• Plan maneuver control measures.	3-I-1-4	ARTEP 71-2
• Plan direct fires.	3-I-1-5	ARTEP 71-2
• Plan fire support.	3-I-1-6	ARTEP 71-2
• Issue OPORD.	3-I-1-8	ARTEP 71-2
• Load vehicle per combat load plan.	Unit SOP	
• Conduct before-operations PMCS.	TM 9-2350-259-10	
• Conduct a system self test.	071-316-2502	FM 7 11 H
• Enter radio net.	113-571-1003	FM 7 11 H
<u>Tasks Performed Enroute to First Engagement Area</u>		
• Move.	3-III-16-1	ARTEP 71-2
• Navigate from one position on the ground to another.	071-329-1006	FM 7 11 H
<u>Tasks Performed at Initial Engagement Area</u>		
• Engage an armor threat.	Add. Task 10-1	ST-23-34-1
• Engage multiple armor threats.	Add. Task 10-2	ST-23-34-1
• Engage an armor threat array.	Add. Task 11-1	ST-23-34-1
• Put on and wear protective clothing.	092-503-1002	FM 7 11 H
• Issue NBC warning and transmit reports.		
<u>Tasks Performed Enroute to Second Engagement Area</u>		
• Move.	3-III-16-1	ARTEP 71-2
• Move in traveling overwatch.		
• Move in bounding overwatch.		
• Initiate unmasking procedures.	Battalion SOP	
• Provide overwatch.	3-III-16-1	ARTEP 71-2
• Take action on contact.	3-III-16-1	ARTEP 71-2
• Collect and report information.	071-331-0803	FM 7 11 H, Bn SOP
• Navigate from one position on the ground to another point.	071-329-1006	FM 7 11 H
<u>Tasks Performed at Final Engagement Area</u>		
• Engage a multiple armor threat.	Add. Task 10-2	ST-23-24-1
• Engage an armor threat array.	Add. Task 11-2	ST-23-34-1
• Engage an armor threat array.	Add. Task 11-5	ST-23-34-1
• Engage an armor threat array.	Add. Task 11-6	ST-23-34-1
• Collect and report information.	071-331-0803	FM 7 11 H, Bn SOP

24-volt wet cell battery and fastened to the rail of the ATTS. The target controller was positioned so he could observe the kill-indicator lights and lower and reset targets as kills were registered. The system had few failures, and it was well received by the ITV sections.

The accompanying chart details the tasks that were performed and evaluated during the qualification course. The training sites included a

wooded assembly area, two engagement areas, and a tactical road march route along secondary roads and wooded areas. Crew drills, verification of load plans, and preventive maintenance checks and services were integral parts of the exercise, and these allowed for the evaluation of skills not directly related to either tactics or gunnery.

In each engagement area, both moving armored vehicles and the





ITV with MILES equipment fires at target down range.

MILES-equipped ATTS were used as targets. Artificial illumination was required during night engagements because of the inability to collimate the MILES day sight tracker with the thermal night sight. (It is interesting to note that several gunners acquired targets by viewing blackout markers through the day sight and then scored kills with illumination.) The thermal night sight also contributed to intelligence gathering by presenting targets that could not be engaged in a particular section's sector. (The decision to report this activity rather than engage was also a good measure of a squad's preparation and its use of range cards.) The sections were also encour-

aged to use the night sight during daylight to scan heavily wooded areas before bounding within their sectors.

An after action review was held after the platoon had completed the course. The discussion group included a cross section of all crew members plus section leaders, the platoon sergeant, and the platoon leader. Although their assessment was that the training was good, they suggested some improvements such as adding more evaluated crew drills, "dirtying the battlefield," and increasing the number of ATTSs used to simulate more movement of threat formations.

This first attempt at establishing a section combat qualification course is

a start toward filling the need for specific training guidelines for the TOW system. It uses existing training simulation devices (with some modification for the MILES-equipped ATTS), and it overcomes some of the deficiencies associated with gunner qualification based on the M70 trainer. The program is flexible and cost effective. It can be adapted to the level of training of the participating unit and modified to accommodate available training areas.

The results of the ITV combat qualification course at Fort Stewart have been gratifying. The course has enabled the ITV sections to achieve increased combat readiness. More important, it has helped the unit identify shortcomings in all areas that would not have been found with the standard gunnery exercises. By identifying these shortcomings, the unit has been able to tailor its training program to further improve its readiness.

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**Captain James W. Tompkins, Jr.**, a 1977 graduate of the Citadel, recently completed an assignment as commander of the Combat Support Company, 2d Battalion, 34th Infantry at Fort Stewart. He has served as a weapons platoon leader and an executive officer, and has commanded a training company and a brigade headquarters company. He is now attending the Foreign Area Officer Course.

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**Lieutenant Harry E. Mornston**, a 1980 graduate of the United States Military Academy, is a company commander in the 2d Battalion, 34th Infantry. He is a graduate of the ITV Trainer Course and the Airborne, Air Assault, and Ranger courses. He also served for 14 months as an antitank platoon leader.

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## Extended FTX for RC Units

**CAPTAIN TONY N. WINGO**

All Reserve Component (RC) units today perform their full-time training duty during a 15-day annual training period. RC combat units normally use the first week of this annual training to conduct a 4-day field training exercise

(FTX) in which they concentrate on mission essential training. Following a weekend break, the units return to the field for a 3-day FTX and their Army Training and Evaluation Program (ARTEP).

Our RC units could derive many more training benefits from these FTXs, however, if they would combine them into one 10-day exercise. This extended time in the field would allow them to create a far more realis-

tic training environment, and this in turn would result in a higher degree of combat readiness for the units. It would also allow RC commanders to fully implement the Battalion Training Management System (BTMS) for the first time.

The number of actual training hours for each unit would increase dramatically. Training managers could then set more realistic training goals, and they would not be limited — as they now are — to one level of training such as squad or platoon. Battalion and brigade commanders could conduct high-level collective training such as movements to contact and attack or defend operations. In fact, a 10-day exercise could end with a full-blown battalion or brigade exercise written and later evaluated by an external unit. Since RC units are historically more productive during the second week of their annual training periods, intensive tactical training during that week would be more effective.

In this extended FTX, RC units would come closer to training as they would fight, because the combat environment it created would provide many training benefits for individual RC soldiers. These soldiers would become more accustomed to the physical and mental demands of extended field operations, and they would gain a far better appreciation for the importance of personal hygiene. They would have to learn, too, to get enough sleep during lulls if they expected to continue in action as effective members of their teams. At the same time, they would become more proficient in their individual MOSs. All in all, this kind of intensive training would definitely improve the soldiers' chances of surviving on a modern battlefield.

Not only would these continuous operations improve the tactical side of combat readiness, they would also im-

prove the logistical support side. The combat service support would be greatly improved overall, because the 10-day field training exercise would force soldiers to perform their logistical and maintenance functions as they would have to in combat. In today's annual training periods, when vehicles and equipment become inoperative, all too often they are simply replaced with equipment that is not being used. In an extended exercise such as this, it is more likely that all the equipment would be in use.

It has become evident that the terms *rearm*, *refuel*, and *repair forward* are not properly understood within the Reserve Components. An extended field training exercise would demand

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**Extended time in the field would allow units to create a far more realistic training environment and thus to attain a higher degree of combat readiness.**

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proper staff planning and coordination for support, and it would require all support personnel to become intimately familiar with the tactical scheme of maneuver and the support requirements of the fighting units. This would further improve a unit's combat readiness and its future survivability on the battlefield.

If a 10-day field training exercise were adopted for RC combat units it would undoubtedly bring with it some problems. For example, some of the non-combat units training at the same annual training sites would not participate in any kind of field training exercise. Some soldiers in the combat units, therefore, would ask to be assigned to a non-combat unit, hoping thereby to spend the entire annual

training period in the cantonment area.

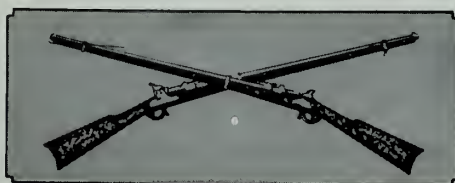
This exercise would also eliminate the weekend break, which has traditionally been a time for such recreational events as softball, golf, and tennis tournaments. Losing this personal time and having to undergo unpleasant field training conditions, too, might lead some soldiers to get out of their combat units. And enlisting in RC combat units might not appear as attractive to some soldiers as it has in the past. (Let's face facts — many members of the Reserve Components have to take vacation time from their civilian jobs to attend annual training, and a number of them seem to feel that the annual training period should be at least partly vacation time.)

Still, despite the possible problems, an extended field exercise would be far more productive in terms of training than any exercises RC combat units now conduct. This concept would test the ability of RC combat units to sustain themselves in the field under extended combat conditions, and it would encourage those units to train as they would fight, both tactically and logistically.

The RC units might suffer some initial losses in personnel or some decline in recruiting incentives, but the kind of soldiers the Reserve Components need are those who really want to be well trained and are willing to put in the necessary time. The individual soldiers, as well as their units, would benefit; this, in turn, would improve everyone's chances of surviving on a future battlefield.



Captain Tony N. Wingo is assigned to the 1st Battalion, 167th Infantry (Mechanized), Alabama Army National Guard. He is a graduate of the University of Alabama and has trained with the 5th Infantry Division at the National Training Center.





# ENLISTED CAREER NOTES



## OFFICIAL PHOTOGRAPHS

One of the first things a promotion or NCOES selection board member sees when he starts reviewing a record is the NCO's official photograph. This does two things: It helps to emphasize to the board member that the file he is reviewing represents a real soldier — his appearance, awards and decorations, and length of service.

Last year, promotion boards started using the "hard copy" photograph, and in it errors and ill preparation are even more apparent than they were in the microfiche photo.

Getting a good photograph taken requires sound preparation. AR 670-1, Wear and Appearance of Army Uniforms and Insignia, and AR 640-30, Photographs for Military Personnel Files, contain the details.

The proper uniform, according to AR 640-30, is the Army green uniform with basic branch insignia, all permanently authorized ribbons, badges, and tabs correctly displayed. The shoulder sleeve insignia (crests) are not the only authorized deviations from this rule. Only low quarter shoes are authorized.

The initial photograph for an NCO's file must be taken within 60 days of his promotion to SSG and every fifth year thereafter (during his birth month). This is the maximum time between photographs — there is no minimum. An NCO should submit a new photograph whenever it is to his advantage to do so — when he has lost weight, been promoted, gotten a new or better fitting uniform, or received another award or decoration.

Some of the most common problem areas on official photographs are:

- Uniform wrinkled or ill-fitting. (Trouser creases need special attention.)
- Moustaches too long or wide.

(Three out of four fall into this category.)

- Ribbons or badges improperly placed or missing (marksmanship badges, in particular).

- Incorrect number of length-of-service slashes.

- Infantry cord and blue discs.

- Incorrect trouser and sleeve length.

- Edges of soles of low quarters scuffed, scarred, or not shined.

Worse yet, too often the NCO's photo is outdated or missing entirely.

Getting an appointment for a photograph sometimes presents a problem, so it should be done early enough to allow for a retake if it becomes necessary.

When an NCO gets his photograph back, he should take a good, long, critical look at it and ask himself whether the soldier in it looks like a professional who cares about his career. If his answer is "yes," he should get a second opinion, preferably from his next senior NCO. If the answer is "no," he should correct the problems and have another photograph taken.

Because the photograph carries a lot of weight with the board, and because competition for promotion and NCOES selection gets tougher each year, it is worth the trouble to see that the photo is right.

## USASMA CLASSES

Students who are scheduled to attend U.S. Army Sergeant Major Academy (USASMA) Class 26, July 1985 to January 1986, have now received their tentative follow-on assignments. Pinpoint assignments for the gaining installations will be made around October.

Students scheduled to attend Class

27, January to July 1986, who have not already done so should forward their updated DA Forms 2A and 2-1 (Personnel Qualification Record, Parts I and II), including a DA Form 2635 (Enlisted Preference Statement). This information is necessary for the proper completion of USASMA worksheets and assignment consideration for projecting the students' next assignments after they graduate.

These documents should be sent to Commander, MILPERCEN, ATTN: DAPC-EPK-I, USASMA Manager, 2461 Eisenhower Avenue, Alexandria, VA 22331-0413. The points of contact for inquiries regarding USASMA classes are MSG Bent and Mrs. Alexander, AUTOVON 221-9166/9425/8056.

## LETTERS TO PROMOTION BOARDS

Enlisted soldiers who are being considered for promotion or school selection may write letters directly to the board's president, if necessary to correct errors, update files, or supply missing information.

A soldier's complete promotion file consists of:

- The performance (P) fiche from his official Military Personnel File (OMPF).

- DA Forms 2A and 2-1, Personnel Qualification Record.

- His Personnel Data Sheet, which the Enlisted Records and Evaluation Center produces for the board.

- His latest photograph.

Since the boards use these items in making selections for promotion and schools, it is to a soldier's advantage to make sure his file is complete and free of errors.

Items submitted with letters are considered part of the board proceed-

ings and will not be used to update the soldier's OMPF.

Letters to the board president should be written in military letter format, following the procedures in AR 340-15. They should be brief and factual and should not contain information that is already on the OMPF.

Letters may not be used to express grievances or boasts or to justify past misconduct. Letters from third parties, or letters that contain derogatory information about other parties, will not be accepted.

Soldiers should have their letters reviewed by someone who is familiar with military correspondence procedures and who can check for errors in grammar and spelling. A well-written letter can benefit a soldier, but a poorly-written one can hurt him.

Letters should be mailed in time to arrive before the cutoff date, which is normally ten days before the date on which the board convenes.

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## **EMBASSY AND DIPLOMATIC POSTS**

The Army is looking for volunteers in the ranks of SGT through SFC/PSG to serve in the Defense Attache System at embassies and diplomatic posts throughout the world. Soldiers who have excellent certifiable foreign language skills or who have passing Defense Language Aptitude Battery (DLAB) scores are especially needed.

Training for these attache assignments may range from four to 18 months, depending on the length of any language training that may be needed.

Details of this program are contained in AR 611-60, and local Military Personnel Offices have additional information.

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## **ANCOC GRADUATES**

NCOs who were selected for promotion to SFC/PSG or selected to attend the Advanced NCO Course from the Fiscal Year 1986 list and who have completed either the resident or non-resident course, are asked to forward

their diplomas and/or DA Form 1056 to HQ, MILPERCEN, ATTN: DAPC-EPK-I, SFC Calanni, so their official files can be updated.

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## **SECRET CLEARANCE FOR ANCOC**

Because of certain curriculum changes, soldiers who have been selected to attend the Advanced NCO Course should immediately begin the paperwork necessary for them to obtain Secret clearances. Although a clearance is not mandatory, any student who does not have at least an interim Secret clearance will miss certain classes.

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## **NEW WARRANT OFFICER TRAINING SYSTEM**

Warrant officer candidates must now complete a "triple check" evaluation under the new Warrant Officer Training System (WOTS) before being appointed and assigned to their first units.

WOTS, which was implemented 1 October 1984, replaces the Warrant Officer Education System, which had no standard selection or training structure.

Under the old system, candidates were either approved by a selection board or granted direct appointments. Direct appointees could attend a short warrant officer orientation course and go straight to their first unit assignments without having any functional training in their new MOSs.

The "triple check" entry-level process under WOTS requires that a warrant officer:

- Be approved by a centralized board drawn from MILPERCEN, the Army Reserve Personnel Center, and State Adjutants General.

- Complete the Warrant Officer Entry Course, which is conducted at Fort Sill, Oklahoma; Fort Rucker, Alabama; and Aberdeen Proving Ground, Maryland. (The WOEC lasts almost seven weeks and is taught in a high stress environment that provides

standardized training in leadership, ethics, communicative arts, military history, structure of the Army, land navigation, support functions, and other common military subjects required by all warrant officer MOSs.)

- Receive technical certification by the TRADOC MOS proponent. (This is accomplished through diagnostic examinations and a resident technical certification course.)

Newly appointed warrant officers are expected to perform highly specialized technical leadership and middle management functions. Their schooling is therefore directed primarily toward in-depth occupational training instead of the broad multifunctional training given to commissioned officers.

After 5 to 11 years of warrant officer service, every warrant officer must now attend a Warrant Officer Advanced Course. Beyond the twelfth year of service, a select group of senior warrant officers are chosen by a Department of the Army selection board to attend the MOS-immaterial Warrant Officer Senior Course. This course focuses on preparing selected warrant officers for policy and planning duties on high-level staffs or comparable positions on other staffs.

Soldiers interested in applying for warrant officer appointments should read AR 135-100 (Appointment of Commissioned and Warrant Officers) and DA Circular 601-84-4 (WO Procurement Program, FY 85). This quarterly circular gives the latest essential information for warrant officer candidates.





# OFFICERS CAREER NOTES



## SPECIAL FORCES VOLUNTEERS

Effective 1 April 1985, MILPERCEN resumed assigning a limited number of lieutenants to four Special Forces Groups of the 1st Special Operations Command (SOCOM).

Requests for assignment will be processed on a case by case basis until about September 1986. At that time the Special Operations Warrant Officer Program will be capable of providing the required support for SOCOM, and lieutenants will no longer be required.

Breaks in stabilization will be approved for officers who are designated for SOCOM assignments if they are stationed in CONUS but not if they are stationed overseas.

To be eligible to volunteer for Special Forces training and duty an officer must meet the following requirements:

- Must be a combat arms or a combat service arms officer.
- Must be a first lieutenant as of his projected report date into SOCOM and for a period of 12 months thereafter (this does not include the five-month qualification course).
- Must have 18 months of experience in his basic branch serving with a TOE unit.
- Must meet the requirements as defined in AR 614-162 (if not already ASI 5G qualified).
- Must have the endorsement of the command to which he is currently assigned.

Officers designated for Special Operations training and assignment will be sent to the JFK Special Warfare Center at Fort Bragg for five months to attend the Special Operations Detachment Officer Qualification Course. Upon successful completion of the qualification course these officers will be assigned to one of the four

Special Forces Groups.

Interested officers should consult with their battalion adjutants and submit their requests in accordance with the provisions of AR 614-162.

## NEW DA FORM 483

A new officer preference statement (DA Form 483) has now replaced the old form. The difference is that a computer can read the new form and make the data on it immediately available to assignment managers through terminals on their desks.

The information an officer enters on the form, which also becomes part of his official master file, includes his preferred functional area, his preference for duty overseas or in the continental United States, any duty or location priority, three duty preferences, and several tour location choices.

There is also a comment sheet so that an officer can express career desires that are not included in the automated part of the form.

Officers should submit the automated preference statement:

- About 12 months before completing an overseas tour.
- About 12 months after reporting to a CONUS station.
- Within 60 days after starting a class at a CONUS service school or a civilian installation or entering the training with industry program.
- Whenever his personal preferences change.

Officers are cautioned to follow the directions on the form carefully and to return the form *unfolded* in an envelope 9 by 12 inches or larger. (The computer cannot process folded forms.)

The information on the form becomes part of the new automated officer distribution and assignment system. The date of an officer's latest

preference statement appears on his Officer Record Brief.

The new forms are available from servicing Military Personnel Offices. The old form should not be used.

The completed form should be sent directly to MILPERCEN using one of the addresses listed on it.

## OER SUPPORT FORM

AR 623-105 now requires that raters and rated officers have a face-to-face discussion of the rated officer's duties, responsibilities, and performance objectives. The discussion must take place during the first 30 days of a rating period.

The OER Support Form (DA Form 67-8-1) is also being changed to include a record of this face-to-face discussion. Both the rated officer and the rater will have to initial the form to verify the date of the discussion.

The revised form will also include more space for the officer's performance objectives and significant contributions.

Instructions for using the new form will be in Issue Number 4 of the Officer Ranks Personnel Update, and the new OER support forms should be available beginning in May.

## CAS<sup>3</sup>

CAS<sup>3</sup> is the Combined Arms and Services Staff School. It is open to young officers with between six and ten years of commissioned service. Many of the young officers who are eligible to attend do not fully understand the course or what it is intended to accomplish.

In brief, CAS<sup>3</sup> takes young officers and teaches them to function better in staff positions with the Army in the

field. The course is offered in two phases:

Phase I — the non-resident phase — is open to all graduates of officer advanced courses. It consists of 14 self-paced modules which take about 136 hours to complete.

As a student completes each lesson, he takes the test and sends the answer sheet to the Extension Training Management Division at Fort Leavenworth for grading. When he has completed all 14 lessons, the student receives an open-book comprehensive exam. After he passes this exam, he is then qualified for Phase II, the resident portion of the course, which is held at Fort Leavenworth.

All Phase I qualified OPMD-managed officers in year groups 1977 and beyond will be considered to attend Phase II, which takes nine weeks.

After in-processing, which includes a weigh-in, an English diagnostic test, and the Army Physical Readiness Test, each student is assigned to a 12-person staff group. Each group works with a senior field grade officer, normally a lieutenant colonel who is a former battalion commander. This group stays together throughout the nine-week course.

The students work through 34 problem-solving lessons. These lessons are grouped into seven exercises and threaded together by a common scenario. The general scenario focuses on a fictional mechanized infantry division stationed somewhere in Kansas.

The students begin at division headquarters where they participate in an accelerated eight-day training exercise. This exercise familiarizes them with problem solving, time management, and basic staff techniques. They write military and nonmilitary letters, DFs, messages, fact sheets, memoranda, and a staff study. They also practice quantitative skills such as statistics, linear programming, decision trees, PERT diagrams, regression analysis, and calculator and computer operations. During this training, each student also prepares and presents a complete information briefing.

When this training exercise is finished,

the scenario continues as the officers are assigned to a notional battalion within the division. Here the students conduct a state-of-training analysis, prepare short-range and long-range training programs, resource the long-range plan in terms of funds and POL, and plan for a battalion field training exercise.

The next exercise focuses on managing limited resources (money and manpower) to accomplish assigned missions. The students, acting as members of a directorate of industrial operations maintenance division, formulate a budget on the basis of written and oral guidance.

As part of the training scenario, the world situation worsens, and the division, which has two active brigades and a reserve component roundout brigade, must mobilize.

The students then develop selected portions of mobilization plans with the goal of developing an understanding of the basic staff considerations associated with the mobilization process. The students play the role of staff officers of the mobilizing brigade, or of officers on an installation staff, in both cases planning for the support and reception of the mobilized units.

After the mock mobilization, the students then focus on planning combat operations in a NATO setting and prepare individual staff estimates and a division operations plan. They also formulate the deployment plan and the logistics support plan for the division during the movement.

Finally, the student staff goes through the entire staff planning sequence and the command-post execution of two division-size operations.

In short, in CAS<sup>3</sup> the students learn how to analyze and solve problems, coordinate the solutions, and properly communicate those solutions — abilities that will allow the graduates to perform better as staff officers.

## SHORT-TERM EXTENSIONS

Army Reserve officers who are serving their initial three-year or four-year active duty service obligations no

longer need to request short-term extensions to complete full overseas tours. All they have to do is complete the Overseas Tour Election Statement, DA Form 5121-R, at their MILPOs, and their short-term extensions will be approved automatically.

In the past, officers who first had to complete the basic course and other qualification courses often did not have enough time left on their initial obligations for them to serve a full overseas tour. And officers who wanted their families to accompany them overseas had to submit a request for short-term extension on active duty and wait for approval before they could apply for movement of their families.

Changes to AR 135-215 and DA Pamphlet 600-8-10 will soon require MILPOs to send a copy of an officer's DA Form 5121-R to the appropriate career management division at MILPERCEN as a record of the tour election and the voluntary extension.

For more information, anyone who is interested may write to MILPERCEN, ATTN: DAPC-OPP-M, or call AUTOVON 221-7680.

## IOAC/RC

The following is the Summer 1985 schedule of the resident phases of the Infantry Officer Advanced Correspondence Course to be offered for Reserve Component officers:

### PHASES:

2 and 6	14 July to 26 July
4 and 6	28 July to 9 August
2 and 4	11 August to 23 August





# BOOK REVIEWS



Jane's Publishing Company recently sent us for review another of its outstanding and authoritative reference publications — the 1984-1985 edition of *JANE'S ARMOUR AND ARTILLERY* (897 pages. \$125.00). This edition, like its predecessors, is edited by Christopher F. Foss, who is quite knowledgeable in matters pertaining to armor and armored vehicles. The addenda pages update the volume's contents to September 1984.

In his foreword, Foss looks at the major production efforts and the possible future endeavors of the armor and artillery producing countries of the world, and foresees more intense international competition in the field than there has been during the past few years. He does not look for any marked decrease in those production efforts.

Foss has followed his usual breakdown of 13 subjects, among which are reconnaissance vehicles, armored personnel carriers, self-propelled guns and howitzers, multiple rocket launchers, and tanks. The volume includes a tabular listing of all the armor and artillery in service throughout the world. Historical data, where relevant, is also presented.

What Foss does not say about the Patton series of U.S. main battle tanks — the M46 through the M60 — Richard Hunnicutt says in his latest book on U.S. tanks — *PATTON: A HISTORY OF THE AMERICAN MAIN BATTLE TANK*, Volume 1 (Presidio Press, 1984. 464 Pages. \$55.00). In his two previous books, similar in format to this one, Hunnicutt described the Sherman and the Pershing tank series.

He overlooks little if anything in detailing the Patton tank story, and writes of its historical development, armor, armament, power trains, running gear, and ammunition. But he also feels that this is an interim history

at best, that Patton tanks, in one variation or another, will be around for years to come. As he says, "possible future developments . . . will, no doubt, provide a wealth of material for yet another volume to complete the story."

Another Jane's book we want you to know about is the recently published *ARMED FORCES OF LATIN AMERICA: THEIR HISTORIES, DEVELOPMENT, PRESENT STRENGTH, AND MILITARY POTENTIAL*, by Adrian J. English (1984. 490 Pages. \$50.00). This is a first-of-its-kind survey of Latin America's armies, navies, and air forces. A British author, English is an acknowledged expert on Latin American military affairs and is a military analyst.

Numerous maps and photographs complement a well-ordered text, which traces each armed force from its beginning to the present against a background of geographic, economic, and political factors. It is a particularly timely, as well as useful, reference book, one that the U.S. military professional should not ignore.

Another fine and useful reference work is Greenwood Press's three-volume *DICTIONARY OF AMERICAN MILITARY BIOGRAPHY*, edited by Roger J. Spiller and Joseph G. Dawson (1984. \$145.00 the set). The publisher asked 237 scholars to contribute one or more 1,500-word biographical essays on particular men and women — 400 all told — who figured importantly in American military history. Only a few of the 400 are still living.

Roughly half of each essay is taken up with a narrative of the person's career, including, where possible, the exact facts of birth and death. The latter half contains the essayist's appraisal of the person's importance to the course of American military history.

Each essay not only bears the writer's name but also includes a list of books for further research selected on the basis of scholarly accuracy and availability to the general public. An asterisk following a name within an essay indicates a cross-reference to another entry in the dictionary.

The series also includes six appendices — a chronology of American military developments, military ranks, military units, persons by birthplace, entries by conflict, entries by service — and a comprehensive name index.

The publisher refers to this series as "a milestone reference work." We agree wholeheartedly.

The Osprey Publishing Company of London, England, has sent us a number of its recently published soft-bound volumes in its Men-at-Arms, Elite, and Vanguard series.

The Men-at-Arms volumes contain authentic, detailed, and attractively presented information on the history and appearance of the world's fighting men. Each 48-page book includes a concise narrative, some 40 photographs and diagrams, and eight pages of full-color artwork. The series covers subjects from ancient Egypt to the armies of the 1980s. Each book sells for \$7.95.

The books in the Elite series follow the same format as the Men-at-Arms books but have more text pages and captions. Each of these books has more than 50 photographs and 12 full-color drawings, all in 52 pages, and sells for \$9.95.

The Vanguard books, each 40 pages in length, also are printed in the same format but are used to describe key units and weapon systems of 20th century warfare, with a strong emphasis on armored equipment and operations. Each book sells for \$7.95.

Here are some of the more recent

titles in each series:

- **THE AGE OF CHARLEMAGNE**, text by David Nicolle, color plates by Angus McBride (Men-at-Arms #150).

- **THE PARAS: BRITISH AIRBORNE FORCES, 1940-1984**, text by George Ferguson, color plates by Kevin Lyles (Elite series #1).

- **THE U.S. MARINE CORPS SINCE 1945**, text by Lee E. Russell, color plates by Andy Carroll (Elite series #2).

- **ARMOUR OF THE VIETNAM WAR**, text by Simon Dunstan, color plates by Peter Sarson and Tony Bryan (Vanguard series #42).

- **THE M1 ABRAMS BATTLE TANK**, text and color plates by Steven J. Zaloga (Vanguard series #41).

- **THE SCOTTISH AND WELSH WARS, 1250-1400**, text and color plates by Christopher Rothero (Men-at-Arms #151).

- **PRUSSIAN LINE INFANTRY, 1792-1815**, text by Peter Hofschroer, color plates by Bryan Fosten (Men-at-Arms #152).

- **NAPOLEON'S GUARD INFANTRY (I)**, text by Philip Haythornthwaite, color plates by Bryan Fosten (Men-at-Arms #153).

Finally, we want you to know about the latest edition of the Government Printing Office's catalog Y-5 titled **U.S. GOVERNMENT BOOKS**. It lists nearly 1,000 new and popular Government books, including a fine selection of military publications. The catalog is issued quarterly and is available free upon request.

The GPO maintains a sales inventory of more than 16,000 titles, ranging in subject from agriculture to zoology, and encourages every citizen to take advantage of this vast information resource. We urge our readers to send for this catalog, and for the other GPO catalogs we mention in our pages.

Here are a number of our longer reviews of books we think you should know about:

**HISTORY OF THE UNITED STATES ARMY. Enlarged Edition.** By Russell F. Weigley (Indiana University Press, 1984. 730 Pages.) Re-

viewed by Lieutenant Colonel Richard P. Dexter, United States Army. In this revised version of his well-received original history of the Army, Professor Russell Weigley, from Temple University, has followed the same basic outline. He has partitioned this book neatly into four areas: the foundation (1607-1794), the formative century (1794-1898), a destiny of world power (1898-1945), and the years from 1945 to the present, which includes a new Chapter 23. He has also updated his appendixes, but for some unexplained reason he has deleted warrant officers from the Army's strength figures beginning with 1971. The 93 pages of notes and documents alone are worth the price of the book. General William DePuy may be upset, though, that his name was misspelled the only time it was mentioned as the main contributor to the 1976 version of Field Manual 100-5.

In some of the early chapters, the reader may feel the author has fallen prey to what another historian, Barbara Tuchman, has called the "overload of the negative." Weigley's chronicle of the administrative disasters that have befallen the Army during the past 200 years, may cause a reader to wonder how the Army has succeeded in any of our country's wars. In a few instances I felt I was reading the script for a major television network's evening news.

A common theme throughout the book is the role of the citizen-soldier versus that of a member of the standing professional army. Weigley goes on record as being non-Uptonian in his views on that problem, for he still sees the role of the Reserve Components today as being as "murky as at any time" in our history. He also challenges the "short war" theory that is presently in vogue, feeling instead that any future war will be a protracted affair in which the Reserve Components will have an appropriate role.

This book should be read by every military professional. It may make some people mad, but it will make all of them think.

**MILITARY LESSONS OF THE FALKLAND ISLANDS WAR: VIEWS FROM THE UNITED STATES.** Edited by Bruce W. Watson and Peter M. Dunn (Westview Press, 1984. 181 Pages. \$18.50). Reviewed by Leroy Thompson, Mapaville, Missouri.

This book is a typical "think tank" product in that it offers a lot of information, only a small percentage of which is of direct value to a field commander. In fact, the most valuable lesson the contributors to this book underscore as a result of the fighting in the Falkland Islands is that, despite a wealth of sophisticated technology available on all sides, a combat infantryman is still needed.

This particular war may be cited as being a testing ground for modern technology, but it was the men of the Parachute Regiment, the SAS and SBS, and 40, 42, and 45 Commandos who won the decisive victory with their rifles, their bayonets, and their feet.

The book is divided into nine principal chapters, each dealing with different "lessons" learned from the fighting. For the readers of **INFANTRY**, the one titled "Ground Warfare Lessons" is probably the most interesting, but the chapters titled "Smart Weapons" and "Intelligence and Warning Lessons" also have something to offer.

Many of the book's conclusions seem rather simplistic to anyone who has really studied the South Atlantic conflict. Still, the book can serve as a primer for someone just beginning a study of the war.

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**FOR YOU THE WAR IS OVER.** By David A. Foy (Stein and Day, 1984. 193 Pages. \$18.95). Reviewed by Captain John C. Edgecomb, United States Army.

This is a unique book in that it is a detailed account of the manner in which the Germans handled American prisoners of war during World War II. The author has done his homework well, and his account is well researched and documented. His story



should eliminate any doubt a reader may have had about the extreme hardships, constant death threats, and continuous fear the American prisoners lived with and endured. In fact, this book is a tribute to the strength and courage those men showed.

This is an interesting book, easy to read, and one that should appeal to all readers.

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**SOME SURVIVED.** By Manny Lawton (Algonquin Books, 1984. 295 Pages. \$16.95). Reviewed by Lieutenant Colonel David R. Kiernan, United States Army.

Manny Lawton is a survivor. For the current generation of Americans who may not be aware of the Bataan death march, Lawton takes the reader along on it step by agonizing step.

Lawton's book is a tribute not only to him as a survivor but to the American soldier and his ability to adapt to unbelievably harsh conditions. His capacity for compassion and the camaraderie of suffering seem never ending as the survivors combat adversity minute by minute, day by day, and, ultimately, year by year.

Today's infantryman may take Lawton's chronicle as a lesson he will not find in the technical manuals or field expedient handbooks. That lesson is endurance. In this age of star wars and lasers, it is fitting to consider the human combat multiplier. While other kinds of battles were being fought by other American soldiers in Europe, in Asia, and throughout the Pacific Ocean basin, Lawton and his band measured the success of their daily battle to survive with a mental micrometer. In the end, we, too, survive with the Battling Bastards of Bataan.

To survive is to remember, and to remember is to acknowledge the fact that the indomitable spirit of the fighting man is the ultimate strength of any army.

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**THOSE GALLANT MEN: ON TRIAL IN VIETNAM.** By John S. Berry (Presidio Press, 1984. 173

Pages. \$14.95). Reviewed by Captain F.R. Hayse, United States Army.

This book tells a story about the law, the military services, and military law as it was practiced during the Vietnam War by then Captain John Stevens Berry. Now a practicing attorney in Lincoln, Nebraska, Berry looks at the Vietnam War from the little known and seldom considered perspective of a military defense counsel. And much like Doctor Ronald Glasser's book, 365 DAYS, Berry's book shows the true compassion, humanitarianism, and sense of legal equality that is found wherever American youth is confronted with the terrifying realities of war. Unlike the many-storied portfolio of 365 DAYS, however, Berry's book is divided into only two parts.

The first part tells of Berry's experiences as the chief defense counsel for II Field Force, Vietnam, in 1968 and 1969 and his legal representation of soldiers who were accused of offenses ranging from theft and desertion to rape, murder, and "fragging." These cases illustrate how the author attained the skills he used so successfully to defend his most difficult and famous case, the almost forgotten trial of Captain Leland Brumley.

Berry's defense of Captain Brumley and six other Special Forces officers (including Colonel Robert Rheault) accused of murdering a North Vietnamese agent in June 1969 forms the second part of his book. Although the case was well publicized at the time by various news sources, Berry uses actual testimony, his personal records, and material released through the Freedom of Information Act to give a unique account of a fascinating case that reached from the highest headquarters in Vietnam to the White House.

This book, well written and informative, should be read by every officer in the Army today.

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**A MATTER OF HONOR.** By Don Kowet (Macmillan, 1984. 317 Pages. \$16.95). Reviewed by Doctor Joe P. Dunn, Converse College.

General William Westmoreland is an honorable man who has been wronged. The famous January 1982 CBS documentary "The Uncounted Enemy" charged that the MACV commander caved in to political pressures and orchestrated a "conspiracy" to undercount the number of enemy prior to the 1968 Tet offensive. The program's implication was clear — Westmoreland bore moral responsibility for the casualties of that event.

I knew a bit about the eccentricities of orders of battle in Vietnam, and I had read CIA analyst Sam Adams's explosive 1975 "expose" in *Harpers*, the genesis of this whole controversy. Thus, I was taken in by the documentary. The problem is that the documentary was false.

Westmoreland claimed that he had been tricked and defamed; and an independent *TV Guide* cover story found the documentary flawed and grossly unfair. Although CBS's own internal investigation substantiated most of the *TV Guide* charges, the network was determined to stand by its product. Ultimately, General Westmoreland sued for libel.

This book is the full account of these convoluted events. It is a devastating, damning indictment of the documentary and its producer and others who were swept into the affair at CBS. But it does have flaws of its own. Kowet, one of the co-authors of the *TV Guide* piece, might have been better advised to stop with the award-winning article. His attempt to stretch it to book length has produced a tedious, overly minute saga. Equally tiring is the book's breathless, soap opera manner with its own strong conspiratorial overtones. But to the extent that Kowet helps us understand the background and the issues, his is a valuable contribution on "a matter of honor."

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**SOMME.** By Lyn Macdonald (Merimack, 1983. 344 Pages. \$19.95). Reviewed by Lieutenant Colonel David A. Rolston, United States Army.

*Somme*. One word with two meanings: One, a place in France; the other, the epitome of World War I. A name like Belleau Wood, Argonne, Ypres, and Vimy Ridge. Trenches, mud, going over the top, barrages, gas, and, most of all, death. Casualty figures so high that few of us today can comprehend them.

There are many books on the Great War, a number of them good, a few great. Most deal with the order of battle, with the maneuvering, and with who occupied which trench line on what day. Most address the horrors and the futility of trench warfare as it was practiced on the Western Front. Few give a real picture of life on the front; but Macdonald's book does.

Lyn Macdonald has written a masterpiece. She tells the story of life in Kitchener's army as the soldiers saw it, not in terms of grand strategy and tactics — although those too are addressed — but in day to day life. By thoroughly researching personal journals and diaries and interviewing many survivors, she has been able to put together a complete picture of this battle. She tells it through the eyes of those who were there and relates both the good and the bad.

This book is a must for the professional soldier and for those who wish to understand what war is all about.

Like John Keegan's book *THE FACE OF BATTLE*, Macdonald's book provides real insight into combat. Experienced soldiers will read it and immediately identify with their comrades of a previous generation.

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**THE ROSES OF NO MAN'S LAND.** By Lyn Macdonald (Merri-mack, 1984. 319 Pages. \$19.95). Reviewed by Jeanette R. Dunn, Spartanburg, South Carolina.

This is Lyn Macdonald's third volume on World War I, and in it she skillfully weaves narrative, historical detail, and eyewitness accounts to portray the struggle of the medical personnel who labored behind the battle lines.

World War I revolutionized medical treatment. As doctors and nurses fought to save lives, researchers developed new treatments for gangrene, effective means of blood typing and transfusion, and improved surgical and dental techniques.

Specifically, the author emphasizes the contributions of the Voluntary Aid Detachments (VADs). Organized in Britain in 1909, the VADs were designed to help the island nation during time of war. The young women who flocked to join the VADs were trained to organize transportation,

provide food and dressings for ambulance teams, and establish field kitchens and auxiliary hospitals. In short, during World I they became an integral part of England's war effort.

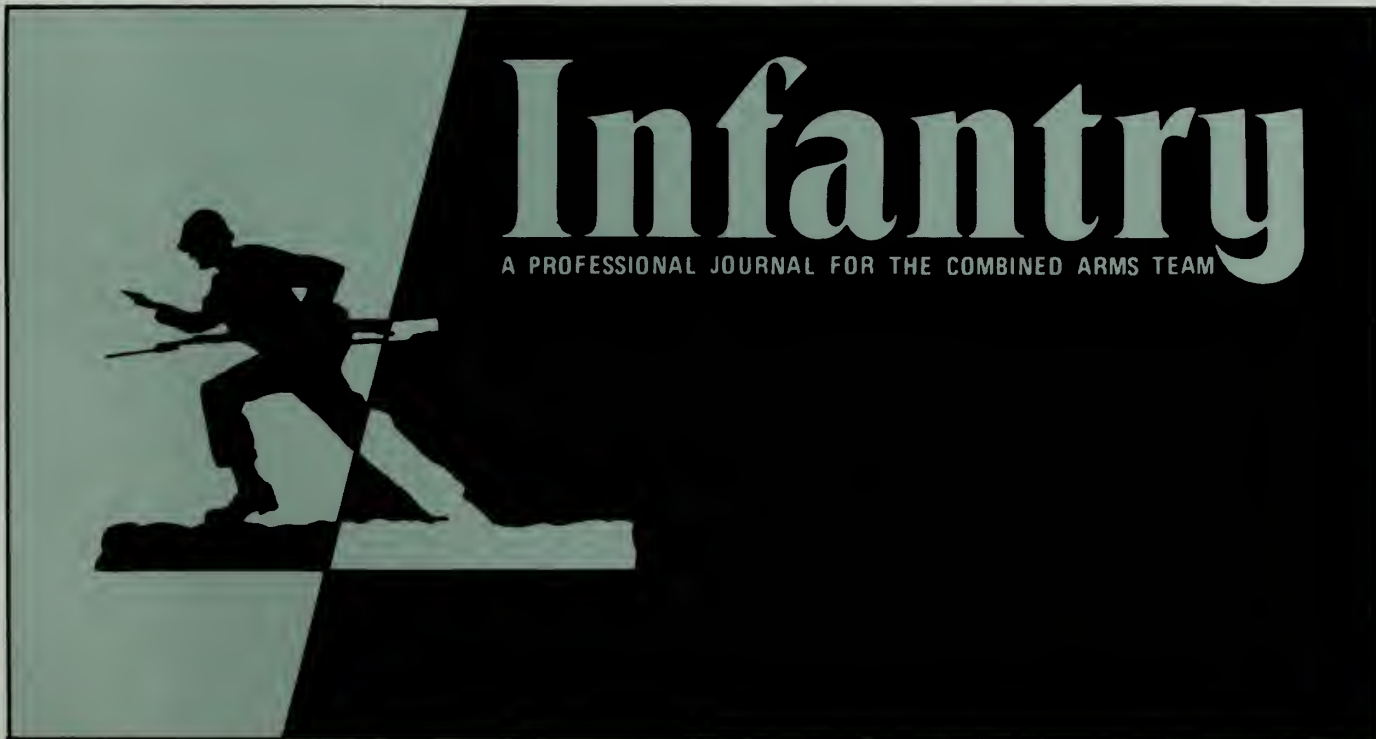
This is a fascinating book. It is easy to read and can be appreciated by a wide audience. Although written by a journalist, it provides valuable historical perspective. Macdonald captures the initial optimism of the Allied soldiers and then their despair as the casualty rolls lengthened relentlessly.

The poignant accounts of the gruesome, wasteful nature of prolonged trench warfare remind us that the experiences of the Vietnam generation were no more horrific than those of our fathers and grandfathers.

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**OPERATION PEACE FOR GALILEE: THE ISRAELI-PLO WAR IN LEBANON.** By Richard A. Gabriel (Hill and Wang, 1984. 242 Pages. \$16.95). Reviewed by Major Robert L. Maginnis, United States Army.

This is a responsible, accurate, and provocative account of the 1982 Israeli invasion of Lebanon. Richard Gabriel, the author of 15 books and scores of articles on military subjects, focuses his attention on the causes and





conduct of the war, and bases his narrative on numerous interviews he conducted during a visit to the area. His first-hand perspective helps the reader visualize the blow-by-blow dynamics of the modern battlefield.

Gabriel feels that the Israeli aim in Lebanon was to destroy the PLO's military infrastructure and political validity. He supports his theory with a thorough, well-documented analysis of the political histories of both the PLO and its archenemy, Israel.

The author's insights and observations, particularly about the Israeli armed forces, are worth further study, and the combat information and the lessons learned warrant further professional investigation. (In fact, the U.S. Army might learn a great deal from the Israelis' successes with their new Merkava tank and their remotely piloted vehicles.)

These issues, as well as the informative political analysis, the description of those small unit tactics used in the day-to-day fighting, and the innovative Israeli approach to medical support make this book worth reading.

Robert Young. Thames and Hudson, 1984. 212 Pages. \$24.95.

**THE BLUE AND WHITE DEVILS: A PERSONAL MEMOIR OF THE THIRD INFANTRY DIVISION IN WORLD WAR II.** By Hugh A. Scott. Battery Press, 1984. 173 Pages. \$16.95.

**HISTORY OF THE 94th INFANTRY DIVISION IN WORLD WAR II.** Edited by Lieutenant Laurence G. Byrnes. Originally published in 1948. Battery Press, 1984. 535 Pages.

**THE HISTORY OF THE 43d INFANTRY DIVISION, 1941-1945.** By Colonel Joseph E. Zimmer. Originally published in 1945. Battery Press, 1984. 96 Pages.

**AMERICAN WARS AND HEROES: REVOLUTIONARY WAR THROUGH VIETNAM.** Adapted from AMERICAN MILITARY HISTORY, OCMH, United States Army, General Editor: Maurice Matloff. Adaptation edited by Stanley M. Ulanoff. ARCO, 1985. 378 Pages. \$19.95.

**THE LORE OF ARMS.** By William Reid. Facts on File, 1984. 256 Pages. \$10.95.

**NORTH AMERICAN FIGHTING UNIFORMS: AN ILLUSTRATED HISTORY SINCE 1756.** Edited by Michael Bowers. Sterling, 1984. 128 Pages. \$14.95.

**THE UNOFFICIAL MRE RECIPE BOOKLET.** McIlhenny Company, Department MRE, Avery Island, Louisiana 70513, 1985. 18 Pages. \$5.00, Softbound.

**CANTEEN CUP COOKERY.** By Galen Geer. Desert Publications, 1985. 46 Pages. \$5.95, Softbound.

**PRIVATE ELISHA STOCKWELL, JR., SEES THE CIVIL WAR.** Edited by Byron R. Abernathy. A Reprint. University of Oklahoma Press, 1985. 224 Pages. \$6.95, Softbound.

**NOTE TO READERS:** All of the books mentioned in this review section may be purchased directly from the publisher or from your nearest book dealer. We will furnish a publisher's address on request.

**THE DRAGON'S PALACE: WRITTEN DURING THE COMBAT ON OKINAWA IN 1945.** By Daniel Rhea. Emons Printing Company, 1984. 142 Pages. \$10.00, Softbound.

**THE U.S. ARMY TOTAL FITNESS PROGRAM.** By Dianne Hales and Lieutenant Colonel Robert E. Hales. Crown Publishers, 1985. 226 Pages. \$14.95.

**A QUICK AND DIRTY GUIDE TO WAR: BRIEFINGS ON PRESENT AND POTENTIAL WARS.** By James F. Dunnigan and Austin Bay. Morrow, 1985. 415 Pages. \$17.95.

**BOMBER HARRIS.** By Dudley Seward. Doubleday, 1985. 347 Pages. \$19.95.

**PATTERNS OF WAR SINCE THE EIGHTEENTH CENTURY.** By Larry H. Addington. Indiana University Press, 1985. 318 Pages. \$10.95, Softbound.

**ALL-ASIA GUIDE.** 13th Edition. Tuttle, 1985. 704 Pages. \$11.95, Softbound.

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**SAFE FOR DEMOCRACY: THE ANGLO-AMERICAN RESPONSE TO REVOLUTION, 1913-1923.** By Lloyd C. Gardner. Oxford University Press, 1984. 400 Pages. \$25.00.

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# **From The Editor**

## **A DISTANT CHALLENGE NOW IN PAPERBACK**

We have just received a copy in paperback format of our second Vietnam-era book, *A DISTANT CHALLENGE*, which we first published as a hardcover book in 1971. (See *INFANTRY*, January-February 1971, page 68.) It is a Jove Book, reprinted by the Berkley Publishing Group from The Battery Press's 1983 hardcover reprint. (See *INFANTRY*, September-October 1983, page 46.) The selling price on the cover is \$3.50.

As we mentioned in our last issue, the first of our Vietnam-era books — *INFANTRY IN VIETNAM* — was also reprinted recently as a Jove paperback from the 1982 Battery Press reprint.

Neither the hardcover nor the paperback reprints are complete reprints of the original volumes. In one book, an entire chapter was omitted, and the appendixes were omitted from both. Still, both of these reprints do carry all of the battle actions that were printed in the original volumes.

## **MAIL ADDRESS SURVEY**

Regulations require us to update our appropriated fund mailing list every two years. Accordingly, we have sent survey cards to all the addresses on our free distribution list — units, staff agencies, senior ROTC detachments, and the like — and have asked them to complete the cards and return them promptly. In particular, we need 9-digit zip codes for all these addresses.

Many of our addressees have returned their cards properly filled out; some have not. We ask the latter group to please return their cards by 1 July 1985. If we do not have the cards by that date, we will have to delete those addresses from our mailing list.

If your office or unit has not received a survey card or has misplaced its card, you should contact our editorial offices as soon as possible. Our telephone numbers are AUTOVON 835-2350 or 784-4951; commercial (404) 545-2350 or (404) 544-4951. Our mailing address is P.O. Box 2005, Fort Benning, GA 31905-0605.

## **HOT LINE**

The Infantry School maintains a hot line for military callers for around-the-clock contact with the field. If you have a general question, or a question dealing specifically with the Army Training and Evaluation Program (ARTEP), or if you have something of an immediate nature to pass on, the number to call is AUTOVON 835-7693, commercial (404) 545-7693.

If you have a lengthy question or comment, please send it in writing to Commandant, USAIS, ATTN: ATSH-SE, Fort Benning, GA 31905-5452.



## **I AM THE INFANTRY WIFE**

**I am the Infantry wife. For two centuries, I have stood beside you. Not always visible, often in the background, but always there. Fearfully waiting but strong and willing, rendering aid, giving support anytime, anywhere, regardless of the cost. I've paid freedom's high price with my tears and heart's blood in war, in threat of war, and in peace . . . I AM THE INFANTRY WIFE!**

**From our nation's birth, as we weaved the soldier's tapestry, I was there. I ached with uncertainty and a fearful perception only a woman feels at birth. I've been on the battlefield, I've bandaged the wounded, I've loaded and fired a cannon and, yes, I've held the hand of a dying soldier giving him strength for the final battle . . . I AM THE INFANTRY WIFE!**

**When this great nation was torn with strife during the Civil War, I was there. I stood helpless against your pride as brother fought brother, neighbor fought neighbor. I walked the blood-stained ground at Gettysburg. I was there at Appomattox and I was relieved . . . I AM THE INFANTRY WIFE!**

**When duty called you "over there," I stayed behind. I worked your factories and your farms. As FDR kept me informed of your progress, I kept my ear to the radio and my eyes toward heaven, but my heart was with you. I've been dubbed a "camp follower" and even a "war lover" by some. They didn't understand that I AM THE INFANTRY WIFE!**

**With the big wars over, our nation flourished with a healing wave. Times were good! We were united. Then, I sent you to Korea. Somehow amidst that confusion, I gathered strength and stood tall. What's the difference between a war and a conflict? Sometimes I don't understand, but I AM THE INFANTRY WIFE!**

**And then, another conflict — I sent you to Vietnam. As I waited, I watched the protests from Berkeley to Kent State. Young Americans burned their draft cards and fled to Canada. Even our flag went up in flames. Through my tears, I held my head high and with pride I welcomed you home, for I AM THE INFANTRY WIFE!**

**Maybe that was the most bitter time, certainly the most bitter test for you. You were called a murderer and a child killer. I cringed at the rejection you received but I stood calmly and proudly beside you. I never judged, I never wavered. You leaned on me, for I AM THE INFANTRY WIFE!**

**When the time comes for me to join the men who have fought and died in freedom's cause, may I take my place beside you and through eternity. I AM THE INFANTRY WIFE!**

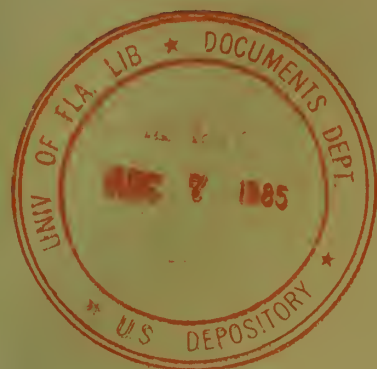
*Sylvia Birdwell  
Fort Richardson, Alaska*



JULY-AUGUST 1985

# Infantry

A PROFESSIONAL JOURNAL FOR THE COMBINED ARMS TEAM





# Infantry

A PROFESSIONAL JOURNAL FOR THE COMBINED ARMS TEAM

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## FRONT COVER

The Bradley and its on-board weapons form a complex mechanical system, but the Infantry is beginning to master its new fighting vehicle.



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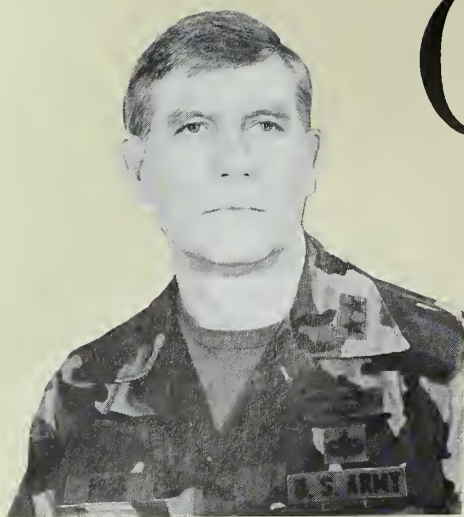
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# Commandant's NOTE



**Major General John W. Foss**

Chief of Infantry

## BRADLEY ORGANIZATION AND TACTICS

The Bradley Fighting Vehicle (BFV) has been in the field for two years. Eight Bradley battalions are now operational, and two more will receive their vehicles this year. We are beginning to build up a base of experience among soldiers, NCOs, and officers who have served in Bradley units, and this experience is helping us to update our tactics and fine tune the way we organize our squads, platoons, and companies.

Although the original tactics and organization have served us well, we have now gained insights that allow us to refine our earlier approach. Our latest doctrinal changes have been incorporated into FC 7-7J, The Mechanized Infantry Platoon and Squad (Bradley), which was distributed to the field in April. This FC was published to get evolving Bradley tactics to the field quickly pending the publication of FM 7-7J through the Army's AG publication system.

Several key problems have now been solved:

- The basic level of tactics for Bradley infantry is the platoon. Once the rifle teams have dismounted, the platoon is the lowest level at which the rifle teams and fighting vehicles interact.

- Drills have been integrated with tactics. Drills are the norm at squad level.

- The platoon leader's gunner, formerly a sergeant, has been upgraded to a staff sergeant master gunner, thus adding technical expertise to the platoon for the mounted fight and improving the platoon's ability to train itself in the complex skills of Bradley gunnery.

- The roles of key leaders in the platoon — the platoon leader, platoon sergeant, and squad leader — have been clearly defined for both the mounted and

the dismounted fight. The platoon moves and fights mounted whenever possible. When the entire platoon is mounted, it fights as a single force under the control of the platoon leader.

- Normally, the platoon moves as a unit. The platoon leader selects the platoon route, the unit formation, and the distance between vehicles. The platoon sergeant maintains station on the platoon leader's vehicle. The other two vehicles orient on the platoon leader and platoon sergeant, respectively. The common term for this role is "wingman." When the platoon moves independently of the company, the platoon leader may conduct movement by bounds and use his and the platoon sergeant's vehicles to form the two pairs. Their wingmen will make up the second vehicle of each pair and will always move and orient on them.

- When the tactical situation requires the platoon leader to dismount his platoon, he dismounts and exercises overall control over the platoon while moving with the dismounted element, because the dismounted action is usually the most critical. He is accompanied by the squad leaders, who assist him in controlling the dismounted fight. The platoon leader ensures that the Bradleys, under the direct control of the platoon sergeant, fight in relation to the dismounted element.

- In the case of a hasty dismount, a situation that will be common on the mechanized battlefield, the platoon leader will not have time to carefully analyze all of the factors of METT-T. Since speed of reaction is critical if the momentum of the fight is to be maintained, drills must replace the METT-T analysis.

- In a more deliberate situation where time is avail-

able for an estimate based on the factors of METT-T, the platoon leader may organize his unit as he deems appropriate. Leaders may be positioned to accommodate a particular situation, and the organization of the mounted and dismounted elements can be different from that used in a hasty dismount situation.

- Regardless of whether the dismount is hasty or deliberate, the platoon leader retains overall control of the platoon.

- The capabilities of the 25mm gun now allow the Bradley and the dismounted infantry to fight when up to 2,000 meters apart, but always in relation to each other. This will occur in offensive situations when infantry dismounts to attack or clear an area while the vehicles overwatch, and in the defense when Bradleys may fight offset from dismounted platoons to take advantage of terrain conditions that make the most of their long range weapons. When separated from their Bradleys, the dismounted infantry will continue to fight in relation to the vehicles by remaining within range of their 25mm guns.

- Bradley gunnery, as outlined in FM 23-1, is based on a realistic evaluation of the crew and platoon gunnery skills required to win on the AirLand battlefield. Gunnery requirements reflect the threat that crews and platoons can expect to encounter. Crew qualification precedes platoon qualification, and both require the attainment of high standards of individual and collective skills. The doctrinal changes have precipitated a requirement to train additional gunners and vehicle commanders. This must be factored into the unit's gunnery and training programs and must receive command attention. A squad exercise will be included in the gunnery programs.

The Infantry is beginning to master its new fighting

vehicle. Soldiers are quickly developing an understanding of the complicated equipment systems of the Bradley, and leaders are learning not only the mechanics of how the vehicle works but the tactics of how the infantrymen and the vehicle work together. Units equipped with the Bradley have made tremendous progress toward achieving high standards in gunnery and tactics, thus realizing the Bradley's full potential.

Many challenges still remain. The Bradley and its on-board weapons form a complex mechanical system. The young leader at squad and platoon level is hard-pressed to master both the vehicle and the associated mounted combat skills while simultaneously mastering dismounted tactics. The challenge facing units is to balance their training on mounted and dismounted skills. The training of the Bradley rifle teams must place a premium on their intelligent employment as well as on their synchronization with the vehicle element during the fight.

Clearly, the Bradley platoon is the greatest training challenge for the infantry. We need to keep in mind that infantry will dismount to do the things infantry has always done on the battlefield — take and hold ground. So we need our dismount skills as well as the new fighting vehicle skills of the Bradley.

I think we can do all these things, but it will be tough. The use of drills as outlined in FC 7-21B will help, as will the publication of FM 7-7J. The new doctrine places greater emphasis on the indirect approach to tactics. We must not timidly wait to see if the doctrine works — we must use the doctrine and make it work. If problems with the doctrine become apparent, and some will, tell your chain of command about them and give us your possible solutions.





# INFANTRY LETTERS



## TRADITIONS

I must commend you and your staff on your outstanding March-April 1985 issue. Two articles especially impressed me.

Major Dwight B. Dickson, Jr., offers a brilliant concept for preserving the history and tradition of our infantry regiments ("Our Infantry Heritage," p. 18). In fact, it is the most elegant solution I have seen to the emotionally wrenching question of which regiments will live and which will die.

Units are not merely numbers to attach to a TO&E: They are links that join our brothers in arms of the past and our descendants who may serve in those same units in the future. The 7th Cavalry, the 16th Infantry, and the 5th Artillery, for example, are not just abstractions or convenient designations (like the "Maintenance Department" at Sears). These names and designations speak of deeds and the men who performed them. They serve as reminders and help present members of the regiments to act accordingly so as not to tarnish those memories.

Tradition is inextricably tied to the armed forces; without tradition and ceremony we are little more than an armed mob. The lack of a past, or the loss of one, is a terrible burden for any person or organization. (As members of the 1st Battalion, 182d Infantry, Massachusetts Army National Guard, are proud to remind you, their regiment is the oldest English-speaking regiment in the world.)

In short, Major Dickson's proposal should be adopted forthwith by direct order of the Chief of Staff.

The other article that impressed me was Brigadier Richard E. Simpkin's "Command from the Bottom Up" (p. 34), which shows a way to eliminate excessive instructions and over-super-

vision. It allows our junior leaders (at whatever level) to develop their own styles of leadership and to make mistakes in peacetime instead of in combat. This gives them a flexibility with which to deal with alterations in plans. And the goal of making "every Infantryman a Ranger" expresses the philosophy very well.

LARRY A. ALTERSITZ  
MAJ, Field Artillery  
New Jersey National Guard  
Woodbury, New Jersey

## COMMENTS, PLEASE

I am an assistant operations sergeant for a Reserve medical battalion and would like to solicit a response from your readers to a problem I consider major.

My last annual training period included a battalion headquarters and three supporting companies, all medical. We arrived in our tactical area at 0800, installed a 292 to a radio mounted in one of the vehicles, and proceeded to run land lines.

There were only four people in our communications section — one manning the radio, one setting up the radio in the TOC, and two running land lines to supporting units and inside the headquarters area. These last two were also responsible for running a line through four miles of wooded mountainous terrain and across two roads to a MAG drop.

Meanwhile, our supporting companies were set up (including sleeping tents) and waiting for us to hook up to their land lines. Our headquarters area was also set up (including sleeping tents) with a permanent perimeter by 1600. Our communications section worked until midnight and had to get up at 0400 the next day because the

MAG drop was dead.

The after-action report on this training cited our communications section for inefficiency.

Looking back, I can see how this situation could have been avoided:

The battalion headquarters could have tasked subordinate units for help since the communications section was at less than half strength. The people who were setting up tents (except for the TOC) could have been pulled off those details and assigned to the communications section. In addition, the MAG drop should have been checked before soldiers were ordered to run four miles of wire to it.

I feel that communications are more important than a permanent perimeter in the first few days of set-up, because it is critical that units be able to coordinate their actions.

Besides, if we had met more than a squad of aggressors during this period, we would have suffered severe casualties and could not have pinpointed the breakthrough or called for help.

I would welcome any comments on what I feel should be a priority to communications above all else. I have a selfish motive behind requesting comments: I don't want to go through something like this again.

EDWARD A. BEDNAR  
P.O. Box 97  
Piney Fork, Ohio 43941

## BAYONET STILL NEEDED

The Befort Bayonet Replacement Debate has sparked a lot of sincere emotion on both sides. We may therefore be onto a timely subject whose merits ought to be played out as far as they go.

There are several points that I believe still should be made:

- When ammunition is gone and malfunctions occur, more weapons will be thrown away if the lack of a bayonet turns them into useless, dangerous deadweight.

- If both sides run out of ammunition in a firefight, the side that still has bayonets will effect the surrender of the other.

- Training has always taught that the very sight of bayonets on the weapons of advancing riflemen terrorizes the enemy. Justified or not, this means that any weapon that reduces the enemy's will to stand fast ought to be included in our inventory.

- More prisoners will be shot if they have to be guarded with either rifle fire or nothing.

- It is impossible to guard prisoners of war silently without the bayonet; and it might be unacceptable to try to stop a runaway with rifle fire in the midst of a crowd.

It is important that these points be made, because several inaccurate and unfortunate statements have been made about this crude-but-never-obsolete weapon. (INFANTRY's letters are influential beyond anyone's imagination, and since these advocates of the extinction of the bayonet have had their say, all other points should be covered, too.)

Incidentally, let's hope for Befort's sake that George S. Patton, Jr., is not on CQ at the Pearly Gates when he tries to turn in his pass to that Great Barracks in the Sky.

SAMUEL F. ROYALL  
2d Division (1961-1964)  
Williamsburg, Virginia

## CALFEX RESOURCES

I read the article "CALFEX: Tactical Training with a Purpose," by Captains E.J. Nusbaum and John T. Robinson (INFANTRY, March-April 1985, p. 42) with great interest, because I am S-3 of a division artillery (3d Armored Division) preparing for our own CALFEX support at Grafenwoehr, Germany.

I've supported this kind of live fire

exercise before, and I agree with the authors that the maneuver soldier derives from such exercises a great appreciation for the effects of each of the complimentary weapon systems, and also that maneuver leaders do gain experience planning and controlling them.

What the article fails to mention, though — and something I think is just as important — is the sense of timing the maneuver commander gains in synchronizing his maneuver elements with artillery, mortars, attack helicopters, and tactical air support. The CALFEX is the only kind of exercise I know of in which that kind of leadership and team training can be employed effectively in a live fire mode. Until MILES technology is dramatically improved to include those indirect fire systems, the CALFEX will remain the best way to conduct such training.

I have just a couple of words of advice for anyone who is planning to conduct such an exercise for the first time. Artillery training ammunition is very constrained now in comparison to 1982 when the men of the 1st Battalion, 18th Infantry conducted their exercise. The 414 rounds of artillery HE that was fired in that exercise represents about 10 percent of an artillery battalion's present annual allocation. If a CALFEX exercise were conducted for every battalion in the division, it would consume the entire annual allocation of HE for one 155mm battalion.

At Grafenwoehr, safety constraints also require the artillery men to use "canned data" when shooting at a single target location from the same firing point using the same deflection, time and quadrant setting for all rounds fired.

There are also other constraints, one being that, in order for the ground troops to see impact of the rounds, a 200-meter height of burst must be achieved on the upward trajectory of the projectile. This means that all of those CALFEX rounds must be fired with time fuzes, which are in even shorter supply than HE. From the point of view of the battery com-

mander, whose mission it is to train his cannoneers to proficiency, the training value of a CALFEX diminishes in about the same proportion that ammunition expenditures increase.

For that reason, I think it is unfortunate that the Army's new STRAC (Standards in Training Commission) allocations do not include training ammunition for CALFEXs. Until that omission is remedied, however, it is imperative that CALFEX requirements be identified at the beginning of each fiscal year so that a reasonable amount of artillery ammunition can be programmed for all maneuver companies or troops in the division.

Right now, the annual STRAC allocation of artillery HE is about 4,200 rounds per battalion. I believe a total of 34 rounds of HE can reasonably be devoted for each maneuver team without seriously degrading the training of cannoneers — 8 rounds for high-burst registration; 2 rounds for subsequent meteorological check; 12 rounds for two-battery volleys in the attack phase by day; and 12 rounds for two-battery volleys in the defense at night.

Assuming 12 company teams in a brigade, an annual CALFEX for the entire brigade would require 408 HE rounds — just under 10 percent of the 155mm battalion's annual STRAC allocation. Each artillery battalion commander would have to determine what trade-offs he had to make in his own training to provide that much ammunition. (Incidentally, if platoon volleys are fired instead of battery volleys, more flexibility is provided for additional artillery engagements, shifting of fires, or refires.)

Finally, the article does not mention the usefulness of a CALFEX for training FISTs and FSOs. They need to develop the same sense of timing and synchronization that the maneuver commander learns, because the maneuver commander in the heat of battle will sometimes have to delegate the integration of indirect fires to these Redlegs anyway.

Therefore, all of us who make up the combined arms team have a stake



in CALFEX training. So let's beef up the STRAC to provide resources for these valuable exercises.

FREDERICK S. BERRY  
MAJ, Field Artillery

## BATTLE INCIDENTS

I am looking for information on battle incidents (personal or official accounts) in which the carefully aimed fire of one or two riflemen played a crucial role in the outcome. I also seek accounts of military encounters in which the pistol played an important part.

I ask readers who respond to include the date of the incident, unit identification data, their comments on the marksmanship training they received (including any before entering military service) and their views on the comparative value of area fire and aimed fire, and of full automatic spray fire and controlled fire (one, two, or three shots).

My address is The Scribe Press, P.O. Box 368, San Rafael, CA 94915; telephone (415) 456-4198.

F.L. GREAVES

## LONG RANGE SURVEILLANCE UNITS

In the letters section of the January-February 1985 issue of *INFANTRY* (page 5), Captain John Provost stressed the need for LRRPs (long-range reconnaissance patrols) and disagreed with the decision to place the LRRP detachments under the control of the cavalry squadrons in the light and heavy divisions.

First, the term LRRP is now outdated. The current title in the AOE structure is "long-range surveillance units" (LRSU). The corps has a 186-man long-range surveillance company (LRSC) and the division, a 41-man long-range surveillance detachment (LRSD).

I totally disagreed with the logic and arguments Captain Provost presents

in his letter. He says that the LRSD would receive better logistical and communications support from corps, that unit training would be improved, that the quality of soldiers would be better controlled, and that the detachments would have access to more international training exercises.

Within our divisions, the experts on reporting human intelligence (HUMINT) on the enemy have been the cavalry/reconnaissance squadrons. Assigning these dynamic detachments of highly trained, long-range, foot-mobile, reconnaissance experts to the squadrons will improve their ability to accomplish their missions in the divisions' area of interest. In regard to passing battlefield information, the link between the G-2 and the cavalry/reconnaissance squadron has always been direct. Under the AOE structures, it will continue to be direct.

Under the cavalry/reconnaissance squadron the combined arms and integrated training of the LRSD should be better. The squadron's main missions are reconnaissance and security, and the LRSD's mission is to report intelligence. The units are unquestionably linked. As part of the combat aviation brigade, the reconnaissance squadron and the LRSD have the full-time support of that headquarters. It has not only superb logistical and communications support, but also an organic means of rapid insertion and extraction.

High-quality personnel are now joining the LRSD in the 7th Infantry Division (Light) and have already established their importance and demonstrated their capabilities during recent large-scale CPXs. The current TOE/MTOE best serves the "unit of command" principle of war by placing the LRSDs under the squadron commander's control. There he can incorporate them into his BTMS program and develop the employment and

We welcome letters from our readers and print as many of them as we can. Sometimes it takes a while before we find room for them. But keep writing on topics of interest to our readers, and we'll do our best to get your letters in, sooner or later.

"how to fight" tactics for the entire squadron.

LRSUs are now projected to attend a long range surveillance course that is being developed by the Infantry School (with the input of the other concerned schools and branches). This course will teach the foundation of LRSU tactics and techniques. The skills and knowledge the LRSDs bring back from this course will become an integral part of the squadron's reconnaissance training program.

Certainly the G-2 and G-3 will continue to plan and coordinate all of the division's intelligence and electronic warfare assets and their missions, but the reconnaissance squadron's personnel need to be under one commander. Corps long-range surveillance companies are important, but leave our long-range surveillance detachment where it belongs — in the cavalry/reconnaissance squadron.

I am proud of the combined arms mix in the squadron, and the LRSD is one of the best assets we have. It is where it can do its job best. Captain Provost can rest assured that in the 7th Infantry Division (Light), the long-range surveillance detachment will never die on the vine!

R. DENNIS KERR  
LTC, Aviation  
2d Squadron, 10th Cavalry  
Fort Ord, California

## FALL OF ITALY 1943

I am completing research for a book and am trying to reach people for interviews and information concerning the fall and occupation of Italy in and after 1943.

I would appreciate hearing from all former soldiers who were involved in occupying towns and cities in Italy after 1943. I am most interested in conducting interviews, but letters, diaries, or other accounts would also be helpful.

My address is 496 N. 19th Street, Philadelphia, PA 19130.

JOSEPH R. DeMARCO

# INFANTRY NEWS



THE U.S. ARMY MARKSMANSHIP UNIT at Fort Benning is asking soldiers in the rank of staff sergeant and below who have had competitive shooting experience with a rifle, pistol, or shotgun to apply for assignment to the Unit.

Applicants should be highly motivated and have a winning spirit, a clean civilian and military record, and proper military appearance. To apply, interested soldiers are asked to send a resume of their shooting experience, including scores from matches, if available; a recent photo; and a copy of their DA Forms 2 and 2-1 to the Commander, USAMU, Fort Benning, GA 31905.

FOR ALMOST A YEAR, the Infantry Center has been working on a program that will rekindle an awareness, a pride, and an esprit de corps regarding the Infantry, its regiments with their officers and men, and the history they share.

As an outward and visible sign of that effort, the Center has now established a Trophy Room within the main officers club at Fort Benning and has renamed the club's half-century-old ballroom the Regimental Hall. When completed, the Hall will feature the flags of distinguished infantry regiments, while stained glass windows will depict the shoulder patches of 24 infantry divisions. Crests or shields of some 100 regiments also will be painted, carved, or preserved in stained glass in this special area at the Home of the Infantry.

Additionally, portraits of distinguished military leaders will serve to remind today's infantrymen of their heritage.

The Infantry Center would like your thoughts and suggestions on this project. For example, which regi-

ments and divisions should be honored? Which distinguished military leaders should be represented? Why have these units or individuals earned a special place in the Regimental Hall? The Center also would appreciate information on the location of regimental colors and other artifacts that might be exhibited at Fort Benning.

Comments, suggestions, ideas, and recommendations concerning the Regimental Hall should be addressed to the Directorate of Plans, Training, and Mobilization, ATTN: Director, National Infantry Museum, Fort Benning, GA 31905.

THE U.S. ARMY Infantry Board submitted the following news items:

• **Bradley Infantry Fighting Vehicle: Gowen South.** The Infantry Board recently tested several programs of instruction (POIs) that involved the use of training devices for certain BIFV sustainment gunnery training events.

Four POIs were evaluated with four BIFV crews assigned to each POI. Each POI consisted of a preliminary gunnery exercise, a vehicle team sub-caliber exercise (VTSE), a vehicle team combat exercise (VTCE), and a squad combat qualification exercise (SCQE). One of the evaluated POIs was used as a control POI and was designated the Baseline POI. The Baseline POI crews used the actual BIFV and live ammunition to fire the VTSE, VTCE, and SCQE events. For the VTSE, these crews used the Reavis subcaliber device mounted on the BIFV and 5.56mm ammunition.

The other three POIs substituted training devices for the VTSE and VTCE events and did not use any live fire during those events. Three training devices were evaluated: the Unit Con-

duct of Fire Trainer (UCOFT), the Precision Gunnery System (PGS), and the Bradley Gunnery and Missile Target System (BGMTS). Each of these three training devices provided the test crews — Bradley commander and gunner — with 25mm, 7.62mm, and TOW weapon systems engagements.

The UCOFT POI crews were trained on the device at the contractor's facility in Florida. The UCOFT consisted of a crew station, an instructor and operator station, a crew briefing station, and a computer system. The UCOFT provided both visual and printed performance results.

The PGS POI crews used the actual vehicle with the PGS training device on a range. The PGS consisted of an eye-safe laser firing unit mounted on the vehicle's 25mm gun and hit-recording detection modules mounted on full scale targets. The PGS provided printed performance results.

The BGMTS POI crews used the actual BIFV and the BGMTS training device inside a large building. The device consisted of a rear projection screen unit, a moving and stationary target control console, and a line-of-sight firing unit for each turret sight. The BGMTS did not provide visual or printed performance data.

For their preliminary gunnery training, the crews that were going to use the training devices employed the table top Video Disc Gunnery Simulator (VIGS), which consisted of a gunner's console, a video disc player, and a floppy disc drive. The VIGS provided visual performance results. The Baseline POI crews used an actual vehicle and conducted standard turret manipulation exercises for their preliminary gunnery training.

After all of the test crews had completed the preliminary gunnery exercise, the VTSE, and the VTCE, they conducted a live fire SCQE using



actual vehicles and full caliber ammunition for all of the on-board weapon systems.

The SCQE performance results of the crews that had used the training devices were then compared to the performance results of the Baseline POI crews.

The test results will be used by the Infantry Board to develop the best possible training strategies and to begin the actions needed to develop or obtain the appropriate training devices.

• **Simulated Tank Antiarmor Gun-nery System — Dragon (STAGS-D).** The Dragon launch effects trainer (LET) was type classified standard in 1975. At the time, it was recognized that the trainer did not fully satisfy the Army's need for a Dragon training system. The training and materiel development communities agreed that any second-generation training system should provide simulation of the Dragon missile in both launch and flight characteristics. But since no agreement could be reached on the specific functions required in the flight simulator portion of the system, a decision was made to develop a separate launch simulator — the Launch Environment Simulator (LES) — while efforts continued to develop a workable flight simulator.

An exploratory program that began in 1980 has resulted in the development of the STAGS-D, which consists of an instructor station and a student station. The instructor station has video displays that show aiming errors and sight pictures, a sound system to generate missile and other battlefield noises, a keyboard to enter commands and other data, and a printer to provide hard copies of selected information.

The student station has a simulated Dragon weapon system and a terrain table station with three target tracks. The simulated weapon system provides the noise, blast, and weight shift that would occur in an actual missile launch. A missile's flight and target strike are simulated in the gunner's sight, and the tracking run can be replayed for the gunner and the instructor.

The Board conducted an operational test of the STAGS-D from August through November 1984. More than 250 Fort Benning initial entry soldiers who were attending the regularly scheduled Dragon gunner qualification course took part in this test, which compared the training effectiveness of three alternative qualification programs.

Each program used a different type or combination of training devices. One used the STAGS-D, another a combination of STAGS-D and LES, and the third, a combination of LET and LES. The results were compared on the basis of live fire first round hit probability and gunner qualification score correlation with live fire hit probability.

The Infantry School and the Project Manager for Training Devices will use the test results to formulate a recommendation for a development assistance in-process review.

• **Remote Sensing Chemical Agent Alarm (RSCAAL) XM21.** The history of the XM21 RSCAAL dates back to 1954 when the possibility of detecting toxic gases by natural radiant energy was first suggested through research by military contractors. But it was not until the 1970s that the technology for a sensor and signal processor had matured to the point of being practical.

The XM21 RSCAAL is a manportable, passive infrared detection and alarm system that is designed to detect nerve agent clouds up to five kilometers away.

It consists of a tripod-mounted detector powered by a thermoelectric generator (TEG), which can be set up and operated by soldiers who have not had extensive training with the alarm. It can also give a company-sized unit an unattended warning capability for 12 hours.

The operator positions the detector to scan a 60-degree horizontal arc that is centered on the prevailing upwind direction and reorients it when the prevailing wind changes. If a toxic agent cloud is detected, the RSCAAL gives both a visual and an audible signal to warn personnel to take protective measures.

The detector is an infrared radiation measurement device that includes an infrared sensor, a signal processor, and a cryogenic cooler. It is 19.25 inches long, 17.25 inches wide, and 12.25 inches high and weighs 50.5 pounds. It is carried in a transit case that weighs an additional 50 pounds; the base is 30 inches long, 30 inches wide, and 20.5 inches high. The tripod with case weighs 16 pounds and can be extended from 30 inches to 46.75 inches in height. The TEG measures 16.5 inches by 9 inches, weighs 40.25 pounds with fuel, and provides 28 volts of direct current. The total weight of the system is 156.75 pounds.

The XM21 RSCAAL was tested at Fort Benning from January through March 1985 in a simulated tactical NBC environment against standards established by the Chemical School. Six soldiers, who were serving as designated operators in support of an infantry company, moved, set up, operated, and serviced the alarm. Sulphur hexafluoride was used to simulate a nerve agent to test the alarm's detection and warning functions while contaminants such as smoke and exhaust fumes were used to test for false detections and detection degradation. Functional performance, human factors, safety, reliability, and maintainability data were collected throughout the test.

The results of the test will be used by the Chemical School to make decisions regarding the full-scale development of this system.

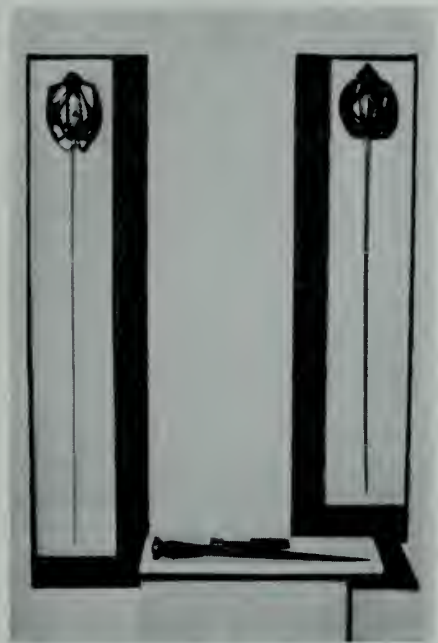
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THE NATIONAL INFANTRY MUSEUM has given us the following notes of interest:

Among the special exhibits at the National Infantry Museum recently was one that recognized the 40th anniversary of Victory in Europe (VE)-Day. Another special exhibit was shown at the Scottish festival held in Shellman, Georgia, to commemorate the Battle of Culloden. This exhibit, which includes 16th century Scottish weapons and accoutrements, is now on display in the Museum itself.

The accompanying photograph shows some of the weapons that are included in this particular exhibit.

A special retreat ceremony honoring the 63d Infantry Division was held



recently at the museum. The Division's association presented to the Museum a stained glass panel depicting the division's shoulder patch. (If other division associations are interested in having their units represented in this way, their spokesmen should contact the Director of the Museum.)

The Museum has on loan uniform items that belonged to German Field Marshal Erwin Rommel. A tunic, hat, and goggles that belonged to him were loaned by the Panzer Museum Munster through an arrangement made by Lieutenant Colonel F. Schulz, the German representative at the Infantry School. Also recently added to the Museum's German collection is a display of World War II German airborne uniforms, equipment, and insignia.

Other interesting acquisitions for the Museum's ever growing collection of military artifacts are a German fire police tunic, dress bayonet, sword with scabbard, metal Nazi eagle, and Labor Service flag; U.S. Civil War period badges; a shooting medal awarded during the mid-1840s during the war with Mexico; the jump knife issued to Colonel Edward H. Lahti in

January 1943 when the 511th Parachute Infantry Regiment was being organized and which he carried throughout World War II on New Guinea, Leyte, Luzon, Japan; military items that had belonged to Major General (Retired) Numa A. Watson; and military uniform items donated by Major General (Retired) Albert H. Smith, Jr., who also gave the Museum a set of Brigadier General stars that had belonged to Brigadier General George A. Taylor. (As a Colonel, Taylor commanded the 16th Infantry Regiment, 1st Infantry Division, on 6 June 1944 at Omaha Beach.)

The National Infantry Museum Society, formed at Fort Benning a number of years ago to assist the Museum with financial and volunteer support, is open to anyone who is interested in joining. The cost is \$2.00 for a one-year membership or \$10.00 for a lifetime membership.

Additional information about the Museum and the Society is available from the Director, National Infantry Museum, Fort Benning, Georgia 31905-5273, AUTOVON 835-2958, or commercial 404/545-2958.

THE DIRECTORATE OF COMBAT DEVELOPMENTS has furnished the following news items:

• **Physiological and Psychological Effects of NBC and Extended Operations (P<sup>2</sup>NBC<sup>2</sup> — Infantry Testing.** P<sup>2</sup>NBC<sup>2</sup> is a major Army study project that concentrates on conducting extended operations in a contaminated environment. It is expected to:

- Provide a commander with planning factors and decision-making criteria.
- Provide a commander with ways to extend both individual and crew endurance and performance.
- Provide a commander with indicators of significant performance degradation.
- Provide implications and insight on how we should fight.

As part of the P<sup>2</sup>NBC<sup>2</sup> program, the Infantry School has planned a two-phase test in conjunction with the Infantry Board. Phase I, which

took place in June 1985, established the baseline performance data for BIFV crewmen operating in a static environment.

Phase II, which will take place in September 1985, will evaluate BIFV squads, mounted and dismounted, in a 72-hour ARTEP scenario. Medical instrumentation has been provided by the Medical Research and Development Command to capture the physiological and psychological stress indicators.

The results of this testing program will be combined with information collected from an extensive review of the existing literature and assembled into a chapter of a draft field circular that is expected to be published in late September by the Combined Arms Center.

Testing in Fiscal Year 1986 will examine training and doctrinal fixes that were identified in the Fiscal Year 1985 testing program. Further testing will examine mortar, antiarmor, and scout operations, as well as light infantry, air assault, and airborne operations.

• **DLTOE Infantry Battalion (Airborne).** A draft living table of organization and equipment (DLTOE) was recently developed as a proposed replacement for the current TOE for an airborne battalion. The proposed changes revolve around three issues: modernization, standardization, and force reduction. (These changes are to take place without detracting from the capability of an airborne battalion to perform its mission.)

The modernization issue includes integrating newly developed equipment into a unit.

For example, some of the new equipment includes the HMMWV as a replacement for the M151 quarter-ton trucks and the M561 Gamma Goats; SINCGARS will replace the current AN/VRC-12 family of radios; and the position locating and reporting system (PLRS) will be added.

On the matter of standardization, under the Army of Excellence (AOE) organizational designs, units with similar missions will be organized under similar TOEs. Thus, while the



current airborne battalion is organized under a TOE that calls for 11-man squads, the DLTOE being developed will call for a nine-man squad. Other similarities between types of battalions will call for the standardized organization of a battalion into a headquarters and headquarters company, three rifle companies and one antiarmor company.

And in an Army-wide attempt to standardize personnel and equipment, conceptual packages have been developed by the various MOS-proponent schools to be used in the new TOEs. Examples of these packages include a medical modular package and a field feeding package.

The third goal of the DLTOE that is being developed is force reduction. A major contributor in this issue is the nine-man squad. A zero growth philosophy is also being used to develop vehicle requirements for the airborne battalion.

The DLTOE, when approved by Department of the Army, will become the living TOE for the airborne battalion.

• **The M249 Machinegun.** The Infantry School is constantly searching for ways to increase the infantryman's firepower while decreasing his load. One way of doing this may be to issue the M249 as a machinegun instead of as a squad automatic weapon. If used as a machinegun, the M249 could be issued with a traversing and elevation mechanism, a tripod, a spare barrel, and additional ammunition. The interesting thing about this proposal is that with the M249 machinegun, a crew could carry twice the amount of ammunition it now carries and still carry less weight.

Despite some earlier reports, the M249's accuracy is comparable to that of the M60 machinegun. A test

conducted by the Infantry Board in September and October 1984 confirmed this. (See INFANTRY, March-April 1985, page 9.)

The M249 is also an extremely reliable weapon. And because it fires the same ammunition as most of a platoon's other weapons, the unit's logistical burden would be lessened.

Tests have shown that the M855 bullet fired by the M249 has greater penetration power against hard targets — such as steel and aluminum — than the M80 ball ammunition fired by the M60, although it has slightly less penetration power against wood.

A decision to field the M249 as a machinegun is expected to be made soon.

• **Alaskan Theater Defense Division.** The 6th Infantry Division will be a theater defense division. Stationed in Alaska and built from the 172d Infantry Brigade, it will be uniquely structured and equipped to operate in a cold weather environment and to perform Alaskan defense missions. Currently, it is expected that the division will have one airborne battalion and eight light infantry battalions.

Although the 6th Infantry Division will be based on the light infantry division's operational concepts, it will have certain capabilities not found in any other unit in the Active Army.

Final force design recommendations were presented by proponent service schools in mid-May 1985 at the Combined Arms Center, Fort Leavenworth.

• **The "Enhanced" M16A2.** The Army expects to receive its first M16A2 rifles in 1986. The M16A2 is much more reliable, accurate, and durable than the M16A1. To take full advantage of the new rifle's capabilities, however, a program has begun to "enhance" the M16A2 before

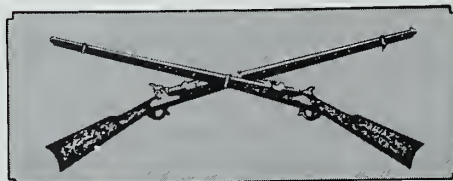
it reaches the field. The program's goal is to give the infantryman a weapon he can aim more easily and therefore more accurately.

The "enhanced" program is currently investigating the possibility of removing the familiar carrying handle from the rifle's upper receiver; in its place a mounting mechanism would be integrated into the receiver. With this system, an optical sight of some kind would be mounted to give a soldier a single point of aim. Thus, once he had properly zeroed the sight, he would need only to place the reticle in the sight on his target; he would not have to worry about a proper sight picture or sight alignment. Studies and tests are being conducted to determine the type of optical sight that is best suited for a combat rifle. Among the sights being considered are rifle scopes and reflex sights.

Additionally, night vision devices would be mounted on the mounting mechanism instead of to the carrying handle, thereby allowing a firer to assume a proper firing position when he used night vision devices.

An added benefit of this mounting concept is that once the optical sight or limited visibility device was zeroed to a rifle, it could be removed and replaced later without having to be zeroed again. In addition, because the concept visualizes a single point of aim, all firers would have the same zero, and a sight would not have to be re-zeroed if a weapon changed hands.

Other issues associated with the "enhanced" program, but not necessarily tied to it, include changing the magazine to a more reliable plastic type. Consideration is also being given to developing a muzzle blast compensator to help reduce or eliminate muzzle climb when a soldier fires three-round bursts.





## Three Kinds of Infantry

COLONEL HUBA WASS de CZEGE

In his article "Thinking About Light Infantry" in *INFANTRY* (November-December 1984, p. 19), Lieutenant Colonel Jack English does an excellent job of illuminating the history of light infantry and the dilemmas of modern mechanized infantry. His conclusion is that (aside from highly specialized types) there ought to be two distinct kinds of infantry: the "in-house infantry" of armor forces and "line infantry trained in light infantry skills." While I agree with the concept of "in-house infantry" for armor forces, I do not agree that one type of infantry can do both "line infantry" and "light infantry" tasks.

Infantry missions cover a wide functional range. Because of this, I believe we need three basic kinds of infantry today.

- We need infantry whose primary mission is to support the advance of the tank. Let's call this *armored* infantry.
- We need infantry whose primary mission is to hold ground and to take fortified or infantry-defended positions. Let's call this *regular* infantry.
- We need infantry that is strategically, operationally, and tactically highly mobile using Army or Air Force aircraft and that can fight highly mobile tactical engagements in difficult terrain. Let's call this *light* in-

fantry. (Light infantry may have several variants, such as air assault and airborne.)

But what does each type do in carrying out these missions?

### ARMORED INFANTRY

Armored infantry orients on the advance and protection of the main battle tank. It keeps up with the fastest tanks, gets through close terrain safely, overwatches and secures tanks during movement, clears mines and obstacles in the path of the tanks, and in static positions provides close-in security and protection for the tanks from dismounted infantry, especially at night.

Armored infantry fights either mounted or dismounted. It accompanies tanks and overwatches them on the move or during temporary halts. It watches for and suppresses infantry equipped with antitank weapons. It dismounts to clear chokepoints in close terrain; it clears road blocks; and it assists in clearing minefields. Since tank formations are primarily oriented toward the offense, even when they are performing a defensive role, so are armored infantry units.

In the defense, armored infantry rarely digs in extensively. It provides close-in protection for tanks in static

positions and supports tanks in counterattacks and in movements between positions. It complements the fires of tank guns in the defense of a position against a combined arms threat and concentrates on taking out key soft targets. It also emplaces road blocks and minefields.

What equipment does armored infantry need to do these tasks? It needs a carrier that has mobility equal to that of the tank. It needs a long-range standoff armor-killing missile system to provide overwatch to moving tanks. It needs a cannon system that can kill non-tank threats to tanks such as other carriers, attack helicopters, and dismounted infantry. It needs to carry mines and other obstacle-creating devices, including pioneer tools. The Bradley Infantry Fighting Vehicle can do this job quite well. (A more heavily armored vehicle would be nice to have in the future, though.) The vehicle should be at least partially protected from the heavy machineguns and automatic cannons (up to 40mm) that are likely to be mounted on equivalent Soviet vehicles.

### REGULAR INFANTRY

Regular infantry often supports tanks at the operation level but is *supported* by tanks in its tactical level



tasks within an operational scheme. It holds key terrain in a defensive framework that may otherwise be dynamic in nature.

In any battle in Europe, it would fortify and defend towns and villages. Its offensive tasks may include taking heavily fortified positions that must be taken by infantry assault. It would follow and support leading armored formations by reducing bypassed pockets of resistance, keeping lines of communication open, and passing through armor units to clear stiff resistance from well-organized defenses to break the armor free to continue the attack.

To increase its tactical and operational mobility and to carry the array of heavy equipment it needs to do its job, regular infantry rides. But it fights dismounted — *always*. In the defense, the regular infantry is uniquely suited to move rapidly to a piece of ground that must be held and occupy it. And it can in short order turn that ground into a fortress that the enemy will have to either bypass or invest. (Operationally and tactically, the trick is in deciding where and when to hold ground, where and when to give up ground and where and when to strike a counterblow. Any operational or tactical defense is a combination of these. Regular infantry is best at holding ground; armored infantry is best at supporting the tank in the dynamic elements of the defense.)

In the attack, the regular infantry may create the initial penetration to break the armor formations free. To do so, it may have to assault fortified positions to take key terrain and root out other enemy infantry that might otherwise deny passage to our tank formations. It may then hold or widen the shoulders of a penetration to make sure the tank force is not cut off.

Some regular infantry may be detailed to follow and support tank heavy forces. This means that, if necessary, it fights to keep the lines of supply of the tank force open by defending against flank attacks and makes it possible to keep the forward units moving rapidly by bypassing strongpoints that are then either re-

duced or contained by the follow-on forces.

When an attacking tank force meets organized resistance it cannot overcome, regular infantry is passed through to break the armor free again. There will also be times in the attack when regular infantry will be asked to quickly seize, occupy, and defend key terrain on a flank to protect the overall force.

One characteristic that clearly distinguishes regular infantry is its ability to move to a key piece of terrain quick-



ly with the paraphernalia it needs to turn that terrain into a fortress and, once there, to be able to do so in a short time. The other characteristic that clearly distinguishes regular infantry is its ability to rapidly reduce fortified positions and well-organized antitank defenses that have been prepared in depth.

The regular infantry is not necessarily a low technology force — it is not necessarily less dependent on equipment than armored infantry. It just needs a different kind of equipment for a different purpose. The vehicle it uses must get it from one

point to another quickly, safely, cheaply, and comfortably. That vehicle must carry at least a full-sized squad and a lot of gear — the heavy tools of the regular infantryman's trade.

These tools are heavy automatic weapons with range and penetrating power, antitank weapons that can be fired from bunkers, mechanical tools (to aid in digging in and building fortifications quickly), mine-dispensing systems, mechanical trenchers, chain saws, demolitions (to clear fields of fire), camouflage systems, concertina wire, night sights, chemical protective gear, flamethrowers, "bunker-busting" weapons, and so on.

The M113, a "stretch" M113, or any number of wheeled carriers now available can provide protected mobility for the regular infantry. This vehicle would be used for travel to the vicinity of the battle and as a "mobile arms room." The mobility and protection the regular infantry needs may be provided in the future by lighter vehicles that have great cross-country load-carrying capacity, that require less fuel, and that are relatively inexpensive. The money saved ought to be spent on the mission-essential equipment the regular infantryman needs to root out the enemy in the attack and to rapidly create unassailable defensive positions. Regular infantry battalions would benefit from having an organic combat engineer platoon appropriately equipped to create or reduce both obstacles and fortifications.

## LIGHT INFANTRY

Light infantry is specialized for rapid air transportability, clandestine insertion, very rugged terrain, night operations, infiltration, raids, and ambushes; it gives off only small tactical signatures. This kind of infantry complements other forces at the strategic, operational, and tactical levels.

At the strategic level it provides the flexible, rapid, initial response capability that often is sufficient in itself, or it provides the entry point for other follow-on forces.



At the operational level, light infantry is often used in many creative ways to complement heavy forces. In the defense, for example, it denies the enemy large areas of rugged terrain as primary avenues of advance; it frees other forces to become operational reserves; and it defends these areas of rugged terrain so that they can become the fulcrum for defensive maneuver and counterattack. In the offense, large light infantry forces infiltrate through rugged terrain to seize critical points or disrupt lines of communication, air assault to seize bridge-crossing sites for linkup, or conduct other deep maneuvers to facilitate the attack of heavy brigade, division, or corps forces.

At the tactical level, light infantry forces frequently cooperate with other arms. For instance, light infantry cooperates with helicopter formations to become a vital part of an "air mechanized" force. Light infantry battalions also assist by holding critical chokepoints in smaller, more rugged areas within the schemes of brigades and divisions that are made up primarily of heavier forces. In attacks conducted by heavier forces, light infantry battalions are air-lifted to seize chokepoints before they can be occupied by the enemy, thereby facilitating the rapid passage of the armored formations. They maneuver through impassable terrain in any weather or under cover of darkness into an enemy's flank or rear.

Light infantry is difficult to detect, but once detected it must complete its tasks quickly and violently or it can be defeated easily. It derives its protection from its ability to hide and to move in rugged terrain. It does not like to dig in and hold strongpoints because it lacks the means to do those tasks quickly and well. It can't carry much weight because it does not have the mechanical transport to stockpile ammunition, mines, and barrier material or the tools to prepare strongpoints.

It uses a wide pattern of hit-and-run tactics to repeatedly deny opposing mechanized forces the use of the regular road nets through rugged terrain.

It works best, perhaps, in conjunction with attack helicopters, protecting the air avenues of approach into the flanks of enemy columns along high speed corridors through rugged terrain.

Light infantry, being more nimble, forces the enemy to dismount his own infantry to root it out and destroy it. The purpose of these tactics is to tie down a large number of enemy troops with a small number of our own, and to slow their tactical and operational advance. Slowing the advance without committing our heavier forces allows our higher level commanders, at division and corps, to maneuver striking forces against the enemy at the appropriate places to defeat him operationally.

To do these things, light infantry troops must be lightly but potently equipped. There can be few compromises on their equipment. The battalion should not have any mission-essential vehicles. All its vehicles must be transportable by utility helicopter. The light infantry soldier himself must be able to carry his entire fighting load, a load that should not exceed 50 pounds. His weapon should be light but capable of tremendous firepower during the short but violent engagements that are expected. He must have the ability to direct precision-guided munitions from remote locations. It must be possible to resupply him by air at night and from prestocked caches.

## MISSIONS

In summary, then, both armored and light infantry can do regular infantry tasks, but not as well as regular infantry can do them. Regular infantry can occasionally support the advance of tanks and work in close tactical cooperation with them. Regular infantry can also occasionally perform dismounted combat in highly restricted terrain. But the equipment, organization, and training of the three types of infantry make each particularly well-suited for a particular range of missions.

If we truly had these three types of

infantry, at the operational level we might well see all of them fighting interdependently within a corps sector. Armored infantry might be found in task forces and brigades that were primarily armor and might perform their tactical chores within operational schemes using speed and shock action.

Regular infantry might be found in task forces and brigades that were primarily infantry and might perform the difficult tasks of holding or taking key terrain. During an offensive, they might follow and support — protect the lines of supply of the armor and reduce pockets of resistance.

The light infantry might play a critical role in difficult terrain and during night fighting, the medium of battle that suits them best, and might free other forces to do what they do best. Light infantry could also be positioned rapidly by air (when being there first was most important) over tactical, operational, *and* strategic distances.

How these types of infantry should be grouped is a topic for another article. The important thing here is to resist the trend toward only two types of infantry — armored and light. Much of the debate today over how to use the Bradley-equipped infantry and the new light infantry results from trying to use either force as regular infantry. We need to develop a third type of infantry — a regular infantry — for use in that middle range.

We may already have such a force. In fact, we have basically had it all along in our M113-equipped mechanized battalions — especially when they were trained to fight using tactics suited to their equipment. That's worth thinking about!



Colonel Huba Wass de Czege served with airborne infantry units in Germany and Vietnam, as a ranger advisor in Vietnam, and with both regular and mechanized infantry in the 9th Infantry Division. Now on the staff of the Command and General Staff College at Fort Leavenworth, he has been selected for brigade command.



# Training Infantry in the ROK Army

LIEUTENANT COLONEL GARY E. WOODRING

The organization and training of the Republic of Korea Army (ROKA) are similar to our own in many ways. (Exact comparisons are left to the reader's discretion.)

This article is intended to give my fellow infantrymen some general information about the ROKA and its infantry training. (The examples and the observations and comments are illustrative only and are based on my brief exposure to the ROKA 26th Infantry Division — the "sister division" of the U.S. 2d Infantry Division.)

The tone for conducting training in the ROKA has been set by its Chief of Staff, General CHUNG, Ho Yong. Here is the guidance he has issued to all ROKA units:

- Units are to conduct mission oriented unit training by echelon (MOUTRE).
- Each echelon is responsible for the individual and collective training of its organic soldiers.
- Unity of command must be established during peacetime in preparation for war.
- Leaders and commanders must understand the training plans and priorities of their superiors and subordinates.
- Squad leaders must master all the tasks required of their men and be proficient instructors in those tasks.
- Battalion commanders are to personally lead cadre training for officers and noncommissioned officers.

The ROKA 26th Infantry Division, organized on 7 September 1953, is

commanded by Major General RHEE, Byoung Tae. It presently serves as the ROKA 6th Corps reserve. Its motto is "Can Do," and this spirit is apparent in the attitudes and actions of its members.

The 26th Infantry Division's insignia consists of a red ball (representing the sun and the prosperity of Korea) overlapping a yellow ball (representing the moon and happiness, and the freedom of Korea) on a field of blue (representing the mission of the ROK armed forces). The whole is circled by a band of white, which represents unity of effort among all of the division's elements. (The ROKA 26th is therefore known as the "Fireball" division.)

The division has three infantry regiments (the 73d, 74th, and 75th), an artillery regiment, a reconnaissance battalion, a signal battalion, an engineer battalion, a tank company, and various combat service and combat service support units.

Each infantry regiment has four infantry battalions, but during peacetime, the fourth battalion of each regiment is staffed with only a cadre of permanent party members and serves as a training battalion. The three training battalions form an organic, dedicated, division training base.

All new recruits receive basic infantry training. Some of the soldiers are also trained to be mortar, machinegun, and antiarmor crewmen, while selected soldiers are trained to be future squad leaders. Battalion-sized units receive training in patrolling

and in Ranger operations.

The 4th Battalion, 73d Infantry Regiment, is tasked with conducting basic infantry training, and with training crewmen for the M60 machinegun, the 81mm mortar, and the 90mm recoilless rifle. Each year, the unit conducts nine basic training courses and nine classes for crew-served weapon crewmen.

The basic infantry course covers 24 subjects presented in 264 hours of instruction. The subjects are grouped into three general categories: general subjects (76 hours), weapons (82 hours), and tactics (94 hours). An additional 12 hours is programmed as commander's time, which he can use for reinforcement and remedial training as needed.

Each soldier's performance is monitored and evaluated throughout the training cycle, and individual progress is measured by a point system. Each soldier must accrue a minimum of 600 points (out of a possible 1,000) to graduate. In addition, he must qualify with the M16 rifle; pass a five-event physical fitness test; meet minimum standards in bayonet drill, squad tactical formations, and dismounted drill; and demonstrate proficiency in Tae Kwon Do by breaking a brick with the edge of his hand. (Several of the proficiency demonstration events are incorporated into the graduation ceremony, to which parents and relatives are invited.) Upon graduation, the soldiers are immediately transferred to their new units. Only a few of the outstanding ones

receive a seven-day pass before they have to report for duty.

ROKA enlisted soldiers who make the Army a career can expect to spend their entire service with the same regiment. The minimum tour of duty for the draftees is 30 months. (Service is compulsory for all South Korean males.)

The 4th Battalion, 75th Infantry Regiment, also a training unit, has the mission of training squad leaders. The course of instruction is eight weeks in length and each class has about 80 students.

The division spends a good deal of time and effort in selecting the students for this course. For example, basic trainees who demonstrate leadership qualities during their basic training program are brought to the attention of their permanent unit; then the unit conducts its own evaluation of those soldiers during the following 16 to 20 months. If at the end of that time a soldier has further demonstrated his leadership potential, he may be scheduled to attend the course. Those who graduate from the course usually receive accelerated promotion to the grade of staff sergeant (U.S. equivalent).

The squad leader course consists of 360 hours of formal instruction, and a student must earn at least 700 out of a possible 1,000 points. The subjects include individual soldier skills, NBC warfare, first aid, dismounted drill, bayonet drill, hand grenades, squad battle drill, and weapons qualification.

One of the most interesting aspects of the curriculum is the emphasis the course places on the use of hand-and-arm signals. The number of commands that can be communicated by these signals far exceeds the number taught in our own army. And in the ROKA, a small unit's responsiveness to these commands is considered a critical determinant of its success in battle.

The 4th Battalion, 76th Infantry Regiment, the third of the division's training units, provides company and battalion collective training in patrolling and in Ranger operations. This bat-

talion also operates live fire ranges in support of squad and platoon tactics and airborne ground training for the division's units.

Each infantry battalion in the division attends a two-week Ranger course every year. The first week of the course is devoted to a review of patrolling fundamentals, river crossing and mountain operations, and small unit tactics. The second week is used for platoon level operations in the division's area of operations. This two-week annual training period includes extensive night training.

Training for the division's nine infantry line battalions is designed to



ROKA soldier on platoon attack course.

sustain a high level of rational readiness. The fact that a real, almost tangible threat exists is a critical factor in maintaining this readiness.

Accordingly, individual soldiers as well as units are frequently evaluated. In physical training, for example, soldiers are expected to attain a black belt status in Tae Kwon Do within 18 months after they enter service. The soldiers are also required to take a physical fitness test during each quarter of the year, a test that consists of pull ups, push ups, a 25-meter sprint, a 100-meter dash, and a 1,500-meter run. Each infantryman must also complete road marches that total 400-kilometers each year. These include a single 100-kilometer road march each year and one 10-kilometer forced march in one hour during each year.

NBC training is conducted monthly

and includes a one-kilometer run while masked. Semi-annual NBC performance-oriented tests are administered, while each platoon-sized unit in the division takes part in an evaluated tactical exercise conducted in an NBC environment.

The infantry battalions also conduct a one-week field exercise four times each year using a reverse-cycle (night training) format. Each week, too, the battalions conduct 24-hour training sessions. Twice a year, each battalion takes part in a four-week field training exercise. Company and battalion tactical evaluations are held annually.

As mentioned earlier, each battalion commander is responsible for personally leading cadre training. The 26th Infantry Division's commander has ordered that at least 300 hours each year be devoted to this program. The units make extensive use of unit journals dating from the Korean War to reconstruct and to wargame specific battles. This stage of cadre training is often conducted indoors over detailed sandtables and is supplemented by the use of terrain walks over the actual scene of the battle under discussion.

Finally, a field exercise with troops is conducted to rehearse and to execute offensive and defensive operations. Often, the battles studied took place on terrain located in a unit's current area of operations, and this lends considerable realism to the exercise.

While it is difficult to measure the exact degree of esprit, motivation, and confidence that has been instilled in the soldiers of the ROKA 26th Infantry Division, those factors are very much in evidence in every aspect of their activities. It is reassuring to confirm that the spirit of the professional infantryman is being upheld by such a close ally.

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# Cohesion in a Non-COHORT Company

CAPTAIN MIKE HUGHES

Army leaders have long been interested in promoting cohesion at company level. Recently this interest has led to the Cohesion Operational Readiness and Training (COHORT) system, which keeps a group of combat arms soldiers together for a complete unit "life cycle" of three years. This COHORT effort is truly commendable, but the fact is that most combat arms officers will never be lucky enough to serve in or command a COHORT company. We therefore need to examine closely ways to develop close-knit teams in all company-sized units. There are several practical ways a commander can build a cohesive, proud, combat ready company that has many of the desirable characteristics of a COHORT company.

Obviously, a company commander is responsible for establishing goals, setting priorities, and charting the long-term direction for his men. Accordingly, he must cultivate a command climate in which each soldier will know he is part of a TEAM. The essence of effective leadership is building *winning teams* in our companies so they can be prepared to fight outnumbered and win. The commander must remind himself and his chain of command that all efforts must focus on reinforcing the value of teamwork, because it is a very important combat multiplier.

The way the daily business of a company is conducted has a tremendous effect on unit cohesion, even in such daily tasks as cleaning the motor pool or conducting "police call." Often an entire platoon or company can be observed simply going through the motions and wasting countless hours do-

ing such jobs. A far better approach might be to assign motor pool clean-up or police call to a specific squad each week. This would enable a squad leader to employ his squad to accomplish a mission in which the results are obvious to everyone. An innovative platoon sergeant could add a touch of competition by determining which squad had improved the company or motor pool area the most during its week of clean-up duty. This is a simple, inexpensive way of building small-unit pride.

## SMALL-UNIT INTEGRITY

In fact, I believe a company should always assign details and taskings in accordance with small-unit integrity. Setting up camouflage nets around a field mess site, operating a booth at a division's carnival, and building a barbeque pit are just a few examples of things I have seen small units do to develop pride and teamwork. A commander should look for these opportunities and should not always pick his best unit to do the job. The weak unit will grow stronger with exercise, just as a muscle will. And with proper coaching from the chain of command, the worst squad in a platoon may soon challenge all the others.

In addressing his subordinate leaders, a commander should use "we" and "our" instead of "I" and "my." In a truly close-knit unit, the soldiers, too, feel a sense of ownership; they are proud of their unit and they will refer to it as "ours."

The leadership style of a company's first sergeant, platoon leaders, and platoon sergeants is worthy of close

attention. Team building is their business, too, and its success depends on their enthusiastic support. A cynical platoon sergeant, for example, must not be allowed to stifle a commander's efforts by tasking his soldiers piecemeal to do things or by constantly reorganizing his platoon just to keep his squads exactly the same size.

A commander might use meetings and classes to observe the degree of cohesion in his company: Do the platoon leaders seek input and feedback from their squad leaders? Do squad members sit together in class? Do they make an effort to help each other accomplish the task being taught? Is the chain of command *with* the soldiers? Indicators such as these may tell a commander something about the effectiveness of his team-building efforts. It also may be beneficial for him to know how his soldiers spend their off-duty hours. Do squads do things together or does everyone go his own separate way?

Without question, training is the most important thing any company does and commanders must strive to promote cohesion in both the planning and the execution phases of all training events. First, in the planning phase, a commander might ask himself how much the platoon leaders, platoon sergeants, squad leaders, and team leaders really contribute to the weekly training schedule. All too often the company commander lets himself be overwhelmed by events and ends up writing the company's training schedule at the last minute to meet a suspense to the S-3 or the battalion commander. (I know, because I have done it myself!) Including the chain of

command in the process is vital if training efforts are to be focused on team-building. Everyone in the chain must be made to feel like part of the team.

In the actual conduct of training, a commander might notice how many soldiers in the unit (squad, platoon, team) are actually present for the training. Is unit integrity being maintained, or are the soldiers being conveniently grouped into "orders" or "stations"? We must not let the small-unit team be dissolved for the sake of convenience.

The critique phase of training is also important. This is where the "coach" or trainer provides the team with valuable feedback. Indeed, a thorough, professionally done critique is the key to the mastery of tactical concepts at the small-unit level. The following are some suggestions for con-

ducting a successful critique that will promote teamwork:

- Have the team members participate. Let them talk through the events and discover the teaching points for themselves.
- Do not rush. Let each soldier or subordinate leader speak his mind. Each must feel he is an important part of the team.
- Try to conduct the critique from a vantage point where you can observe the ground on which the action took place. If possible, walk back over the ground while discussing the specific teaching points. Try to relate the concepts to the terrain and let the soldiers see how it all works.
- Let the small-unit team practice it again until they do it right. This will help ensure that they really have learned the skill. (If the Green Bay Packers perfected the sweep through

repetition, 1st Squad can excel in the movement to contact!)

Of course, there are countless other ways to promote pride and cohesion in a company. A smart company commander realizes that his company will be no better than its small-unit teams — his machinegun teams, fire teams, mortar gun squads, and squads. He must direct every effort toward developing the bonds that establish, train, and sustain cohesive small-unit teams.

COHORT companies do not have exclusive claim on cohesion. In the end, no formal program will ensure success in small-unit team building. Cohesion in *our* Army is up to *us*!

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# First Class: An Attitude

MAJOR L.J. SKLENAR

Some time ago, Captain Michael T. McEwen proposed in *INFANTRY* magazine that the Army establish a combat fitness badge (CFB). The badge would be awarded to soldiers who achieved certain high scores on each of the events of the Army Physical Readiness Test (APRT), and who also passed a combat water survival test, qualified sharpshooter or better with their individual weapons, and completed a five-mile endurance run within a certain time limit. The badge would then have to be recertified annually. (See "A Fitness Badge," July-August 1983, p. 9.)

I haven't heard any more about this proposal, but it may be a good idea; it may provide the change of attitude necessary for soldiers to excel at physical fitness. I found out how important attitude can be a few years ago when I

attended the U.S. Marine Corps Command and Staff College Course.

In this course, the students from the Marine Corps must take the USMC Physical Fitness Test (PFT), which consists of the pullup or chinup (20 is maximum score), the situp (80 is maximum), and the three-mile run (18 minutes or less). The overall PFT ratings are Fail, Third Class, Second Class, or First Class.

Each "sister service" student has the option of taking the USMC PFT or his own service's test. The dozen or so Army officers in the class usually choose to take the PFT instead of the APRT for reasons of interservice "cooperation" and peer pressure (you guess which dominates). In my class, many of the Army officers had come from Special Forces, Ranger, and airborne duty and expected to pass the

PFT easily. Even though I hadn't done a pullup in more than ten years, I didn't expect much trouble passing it either. As commander of a company in an Army Reserve Special Forces group before attending the College, I had kept myself in condition to meet the same higher APRT standards my soliders had to meet to qualify for airborne or Special Forces training. On the day of the test, therefore, I did almost twice the minimum number of pullups for my age group and was pleased that my pushups and three-mile run time put me about halfway into the Second Class range.

Overall, we Army officers felt we had done well. Some even scored First Class (we had a couple of marathon runners and a recent Ranger Course graduate). Our attitude, for the most part, had been geared toward *passing*



the three events and the test, not toward making the highest possible score.

What I didn't expect was the cool reception the Marine officers showed toward any score other than First Class. Perhaps I should have expected it after I stood and watched almost all of the Marine officers in my study group (including the lieutenant colonel who was our faculty advisor) crank out, not ten or fifteen, but the maximum of twenty pullups with apparent ease. I also realized why they had been so conscientious about running five or six miles during the two hours that were scheduled for physical fitness and lunch each day.

From the colonel who was the Director of the College to the newest lance corporal who operated the audio-visual equipment, the Marines' attitude was to reach the First Class level. As I watched other Marine units at the base take their PFTs, I noticed that same attitude.

Given this challenge from the Marines, and without too much more effort, most of us from the Army moved our own scores into the First Class range on the end-of-course PFT. The only thing that had really changed was our attitude.

I don't propose that the Army adopt the USMC PFT. We are not the Corps. Also, while there is some value in having the Second and Third Class

levels for the individual Marine to progress through on successive PFTs, the real function of these other levels is to promote the attitude to "go for it" and reach First Class. I agree with Captain McEwen that a single top category (say, Expert) should be the motivating factor, but his proposed combat fitness badge test might be more appropriate as Phase II of a two-phased program. Phase I would be to establish Expert scores for each of the three events in the present APRT and for the overall test. Soldiers who scored Expert on the APRT could then go for the combat fitness badge.

The CFB would not have the logistic requirements of the Expert Infantry Badge test, and it would have the advantage of applying to all soldiers. But how many soldiers can swim 25 meters even in a swim suit, much less in boots and fatigues? A person has to run only about a mile and a half to "test" his endurance, so the five miles Captain McEwen suggests, plus the swim test, plus the weapon qualification constitute a goal that would, indeed, be worth striving for — but in Phase II.

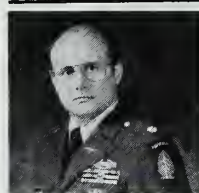
We would not need to wait until the Institute of Heraldry could design a new badge; we would not need to start a massive swim training program. A one-page change to the field manual on physical fitness training could establish scores for males and

females, by age group, for Expert minimums in each of the APRT events as well as overall.

More quickly, organization commanders could establish local programs, specifying Expert minimums for members of their units (perhaps using the scores proposed in Figure 1 of Captain McEwen's article). They could award certificates and letters of commendation to soldiers who scored Expert overall.

Some soldiers always aim for the maximum score in all events of the APRT, but today there is no recognition factor between "maxing" the PT test and just passing it. The Army needs to reinforce the attitude that physical fitness is a good thing. The establishment of Expert scores for the APRT, coupled with some sort of certificate, would reinforce that attitude because many soldiers could attain the Expert level on the APRT.

The Combat Fitness Badge would be tough to achieve and a real distinction on the uniform, but let's implement Expert scores for the APRT now as Phase I of a program leading to the badge.



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## Aerobics: In *My* Army?

LIEUTENANT RAYMOND L. NAWOROL

The Army has changed its approach to physical training. The word has been put out by the Chief of Staff of the Army and by the Soldier Support Center at Fort Benjamin Harrison to get the soldiers in top physical condition.

If you are in charge of PT in your unit, you may be asked any day now to come up with a better PT program for your unit. If so, you might consider aerobics — with music. (Your first reaction here may be "What? In *my* Army?" But physical training, to be

effective, does not have to be boring and tedious.) A unit aerobics program can be designed to give the soldiers the best in cardiovascular and muscular development.

In approaching such a program, there are three things you need to

know: What the experts say about fitness; how such a program can benefit soldiers; and how the program operates.

Physical training experts have shown that during the first 30 to 35 seconds of a fast run (at a 7:30 per mile pace), the heart undergoes its greatest stress and therefore its greatest development. In addition, the experts agree that when a person trains for cardiovascular fitness, his heart rate should exceed 120 beats per minute and, to obtain the best results, it should go up to 160 or more when he runs for 25 to 40 minutes.

As for strength, muscular strength is often thought of as the need to spend long tedious hours in the weightroom. But the experts say that strength is developed by creating stress, or resistance, through a muscle's range of motion. Thus, to increase strength, all that is needed is to increase the stress on the appropriate muscles.

The key value of a unit aerobics program, when compared to programs in the civilian sector, is that it allows each soldier to exercise at a rate that will enable him to get the cardiovascular benefits and at the same time to develop the stress needed to gain muscular strength. Such a program also takes into account the fact that no two soldiers will work at the same rate; yet if they are motivated, all of the soldiers will derive the same cardiovascular and muscular benefits.

When you have to decide what to do in bad weather, while in the field, or coming out of the field after a rough ARTEP, you may find a unit aerobics program most effective. It can be implemented in the dayroom, the motorpool, the mess hall, an aircraft hangar, or any other facility, and with any size formation. It can be used when you want a change of pace from your present PT program or when you are concerned about leaving the tired soldiers behind while the "rabbits" run out front. Because everyone can participate, everyone can be motivated.

The sample program shown in the table is designed to work in a way that will allow your troops to develop their

NUMBER	EXERCISE	TIME (Seconds)
1	Side straddle hop	60
2	Running in place	60
3	V-up	30
4	Pushup	30
5	Squat thrust	30
6	Situp	30
7	Side straddle hop	60
8	Leg spreader	30
9	Mountain climber	30
10	Body twist	30
11	High jumper	30
12	Leg over	30
13	Running in place	60
14	Situp	30
15	Pushup	30
16	Leg circle	30
17	V-up	30
18	Side straddle hop	60
19	Mountain climber	30
20	Body twist	30
21	Eight-count pushup	30
22	Squat thrust	30
23	Pushup	30
24	Running in place	60
25	Repeat again if time will allow, or shorten the time intervals if you don't have enough time to do the program in 30-second intervals.	

upper bodies in one exercise and lower bodies in the next, while their stomach muscles and cardiovascular systems are being worked in all the exercises. Breaks from the sequence are afforded by running in place or by using the side straddle hop.

If you are pressed for time, an intensive 10 or 15 minutes of this program will get the heart rate up to a point at which positive benefits should result. The benefits of the program will be minimal, however, if you as leader do not adhere to seven necessary measures:

- Prepare your troops for the PT session by briefing them on the program and on your expectations for it. Be thorough and give the briefing in advance of the PT session. (Consult FM 21-20 on the proper warm-up and stretching exercises to be done before and after any PT program.)

- Use cassette tapes of preprogrammed music with a flavor that will fit the personality of your unit.

- Use a formation that will allow your troops to see you perform the exercises.

- Be sure to keep track of the time.

- Watch to make sure the soldiers perform each exercise correctly and in a manner that allows for the most repetitions.

- When you perceive that the soldiers are lagging behind, use the side straddle hop or run in place to regain control. Then continue the program.

- Lead by example and set the pace. You must be able to perform each exercise correctly and must continue to perform when the exercises become difficult.

If the unit leaders are committed to physical training, this sample program will work for any unit — infantry, armor, medical, or headquarters. It takes only 15 minutes, but if you go through it twice, the additional work will ensure greater benefits.

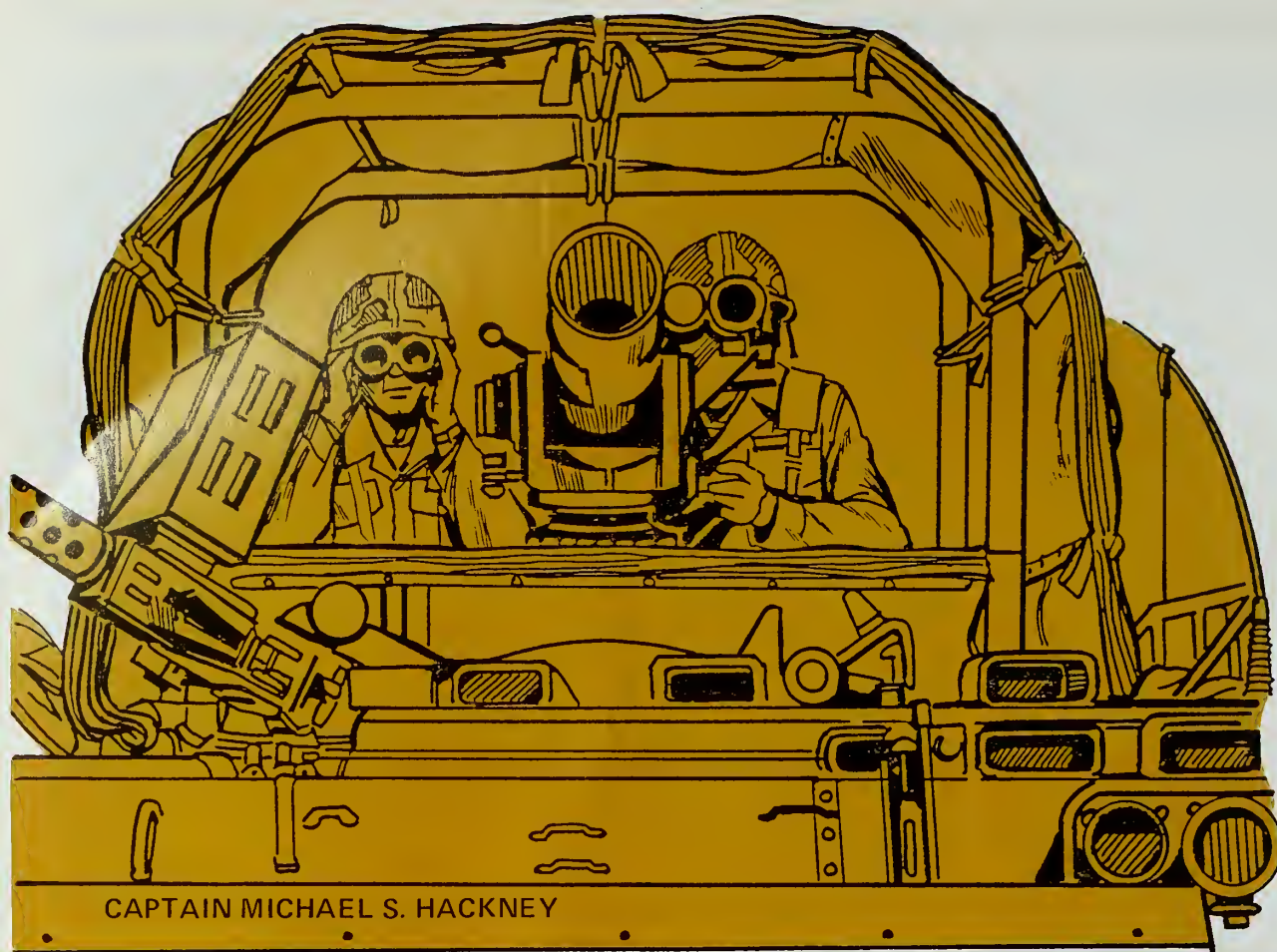
The important points about a unit aerobic program is that it develops the soldiers' cardiovascular and muscular systems; it can be done anywhere; it allows the option of a short or a long workout; it allows the leaders to emphasize certain exercises more than others; and it gives the soldiers a taxing workout in which they are constantly moving. Most important, this program is a physical training vehicle that can help ensure our soldiers are ready for combat.

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Lieutenant Raymond L. Naworol, when he wrote this article, was assigned to the U.S. Army Chemical School at Fort McClellan, Alabama.

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CAPTAIN MICHAEL S. HACKNEY

# ECHO COMPANY: The Fifth Player

The current employment of the J-series mechanized infantry battalion is limited by the absence of a clear doctrine for employing its new fifth player — the antiarmor company (Company E) — more commonly known as Echo Company. Many infantrymen therefore do not fully understand how to use their antiarmor assets.

As commander of a consolidated antiarmor company in the 25th Infantry Division (Mechanized) — and a “veteran” of two trips to the National Training Center (NTC) at Fort Irwin — I found out a great deal about the combat capabilities of that company.

What I offer here is not proposed doctrine. It is rather an attempt to share my perspective on the subject, a perspective gained from experience.

The Division 86 antiarmor company differs greatly from the combat support company’s antitank platoon. Essentially, the platoon headquarters has been replaced by

the combat support company headquarters, and the antitank sections have been organized into three platoons, each with a platoon leader and a platoon sergeant. Each platoon has four ITVs and one M113. In addition, each rifle company in an M113-equipped battalion has an ITV section (two ITVs). (Companies that have the Bradley Fighting Vehicle do not have an ITV section. Thus, the BFV battalion has only 12 ITVs compared to 23 for M113-equipped battalions.)

In many of the battalions still equipped with M113s, the rifle company antitank sections are attached to Echo Company, giving it a total of 20 M901 Improved TOW Vehicles (ITVs). Therefore, two of its platoons have six ITVs each and one M113, while its other platoon has eight ITVs and one M113.

Echo Company, according to TT 71-2, The Mechanized Infantry Battalion Task Force, can be employed in

various ways: It can be employed "pure" to provide centrally controlled heavy antiarmor fires; its antitank platoons can be attached to company teams when the factors of METT-T (mission, enemy, terrain, troops available, and time) so dictate; or it can be task-organized with mechanized infantry and armor platoons to form a fifth company team for the battalion's operations.

In accomplishing these missions, Echo Company has certain abilities — and certain limitations.

### **Brigade Task Organization**

The allocation of ITV assets begins at the brigade level. In addition to determining how his battalions will be organized for combat, the brigade commander performs a METT-T analysis to determine the distribution of his ITV assets. This is particularly crucial for those brigades in which battalion TOW assets have been consolidated in Echo Company.

Simply categorizing tanks and ITVs as "tank killing systems," then dividing the number of each accordingly, is an unrealistic appraisal of the capabilities and limitations of these two systems. The ITV's advantages over a tank are its accuracy, its killing power, and its range of nearly four kilometers. Its limitations are less armor protection, slower cross-country speed, a relatively slow rate of fire, and an inability to fire on the move.

An armor-heavy brigade with two tank battalions and one M113-equipped mechanized infantry battalion has a total of 116 tanks and 20 ITVs. (The brigade also has three additional ITVs in each battalion, which are part of the scout platoons. As these assets will almost always remain organic to their respective battalions, and as their missions are substantially different from the mechanized infantry and armor roles, these scout ITVs are not included in the battalion totals.) On the other hand, an infantry-heavy brigade of two mechanized infantry battalions and one tank battalion has 58 tanks and 40 ITVs.

The brigade commander determines how many (if any) ITVs will be allocated to the tank-heavy task forces. This number is dictated by the organization of the task forces (the projected mix of tank and mechanized infantry companies) and by the mission (the task force mission and terrain that is most appropriate for the ITV).

ITV sections should not be cross-attached, as this would nullify the advantage of multi-section employment. Any inter-battalion ITV cross-attachment, therefore, should be made by ITV platoon. The obvious benefit of this is the command and control aspect of having a trained, ITV-qualified platoon leader control the employment of a unit's antiarmor assets for his attached commander.

For an armor-heavy brigade, in which the ITVs are consolidated, the brigade commander may augment an armor task force with a six-ITV platoon, or he may direct that the heavy ITV platoon (eight ITVs) be divided with four ITVs going to each armor task force. One group of ITVs would be under the control of the platoon leader, the other under the platoon sergeant.

The decision on whether to use Echo Company pure, as a company team, or to attach its ITV platoons to the maneuver companies is contingent on an in-depth METT-T analysis. For both offensive and defensive operations, the commander must determine whether the terrain will allow freedom of maneuver for five company teams. In many cases, either because of constricted space or restricted mobility corridors, the battalion commander may elect to use just the four maneuver companies in his maneuver plan.

If he should decide not to use Echo Company as a maneuver element, the commander must determine how he can best use his ITV assets. In many cases, he will employ the company pure, with a mission of providing general support for the battalion. In so doing, he retains centralized control of the ITV assets, which best ensures a comprehensive, coordinated antiarmor fire plan throughout the battalion's sector. The Echo Company commander obviously must fully understand the battalion commander's intent and must be tactically capable of implementing the ITV plan in conjunction with that intent.

The Echo commander, with the battalion commander and the S-3, formulates an antiarmor fire plan and executes it through his platoon leaders, controlling the platoons' movement to alternate firing positions and engagement positions. Sometimes the terrain or other requirements will not allow the Echo Company headquarters to control or execute the antiarmor fire plan effectively. In these situations, the battalion commander should augment the maneuver company teams with the ITV platoons, making the respective company team commanders responsible for an ITV platoon's tactical employment and fire control.

Unfortunately, as with any attached unit, the ITV platoon attached to a company team often will be forgotten in the heat of battle while that team commander maneuvers his primary assets. A battalion commander should certainly consider this potential for neglect when he organizes his battalion for combat and should be fully aware of his subordinate commanders' ability to use an ITV platoon properly and effectively.

The use of Echo Company for a given mission does not depend totally upon a tactical analysis; it requires a logistical analysis as well. The current battalion organization does not have the resources it needs to support five maneuver teams equally. The standard rifle or tank company's recovery section, medical section, and mess section with water trailer are not directly available to Echo Company, whether it is employed pure or organized as a company team. If the battalion support resources have been severely reduced because of maintenance or combat losses, the problem becomes particularly acute.

### **THE OFFENSE**

When Echo Company is employed pure in the offense, in



both a movement to contact and a deliberate attack, the ITV platoons are maneuvered immediately behind the lead company teams on the axes of advance for the battalion. As the lead company teams move forward, the ITV sections rotate — one overwatching while the other continues to move behind the company team. The Echo Company commander controls the movement of his ITV platoons so that mutual support is maintained between the axes of advance. By observing the company team locations and monitoring them through their reports over the battalion command net, the Echo commander starts, stops, and maneuvers his ITV platoons to support the battalion advance.

### **Movement to Contact**

In a movement to contact, as the battle is joined and the initial enemy locations are determined, the battalion commander directs the orientation of his force and issues the battle orders necessary to overcome his opponents. The dispersion of the ITV platoons on the battalion's axes of advance makes it easier for the Echo commander to respond quickly and to bring antiarmor fires on the enemy. As the situation develops, the Echo commander can maneuver his ITV platoons so that all of them can fire on the opposing force.

This gives the battalion commander a unique flexibility: He can maneuver Echo Company's assets, much the way he would a reserve force, to provide the firepower needed to assist his units in contact. This allows him to keep his other company teams on their primary axes of advance and to maintain the initiative while his units in contact develop the situation.

### **Deliberate Attack**

The employment of Echo Company for a deliberate attack is similar to that for a movement to contact. The ITV platoons, again dispersed on the battalion's axes of advance, trail the lead company teams. To achieve the best stand-off ranges for the ITV, the Echo commander should conduct a careful terrain analysis of the objective to determine the probable enemy dispositions (if they are unknown). His analysis should take particular note of the terrain that allows the enemy his best routes either to withdraw from or to reinforce the objective.

Once this analysis has been made, the positions — both primary and supplementary — from which the company can overwatch the battalion assault on the objective should be determined. These positions, ideally, should provide effective fields of fire to the enemy positions from a minimum distance of 2,000 meters, and should also allow the ITV platoons to engage any enemy forces that seem intent on reinforcing or withdrawing from those positions.

When the terrain permits, an ITV platoon should be positioned to cover these enemy routes at the longest

engagement range possible, even if its primary firing position does not allow the platoon to engage the objective area directly.

After crossing the line of departure, the Echo commander maneuvers the ITV platoons much the way he does in a movement to contact — to overwatch the initial movement of the lead teams. As the lead maneuver teams approach the objective, their axes or routes of advance may not go through the ITV platoon's designated objective overwatch positions. Therefore, the ITV platoons will have to leave the "cleared" area of march that the lead teams have passed through and move on their own to their objective overwatch positions. This is a critical maneuver for the battalion commander, because moving the ITV platoons through terrain that has not been cleared risks his ITV assets.

Sometimes, the battalion commander can use one or more mechanized rifle platoons to provide security for the ITV platoons and to clear their overwatch areas and access routes. At other times, the combat power of the battalion, or the delay that would be involved in getting a mechanized rifle platoon back to its company team for the attack, may make this kind of protection impossible. Accordingly, the ITV platoons may have to clear and seize their overwatch positions unassisted.

During the advance, the depth of the objective or a repositioning of the enemy forces can force the Echo commander to move the ITV platoons to different overwatch positions, and alternate positions must also be planned to allow for such a contingency. Echo company accomplishes this mission much the same way it conducts a movement to contact mission, with the ITV platoons displacing to identified locations on order, and in accordance with a preplanned event-triggered execution matrix.

In the attack, the ITV platoons cannot limit themselves to a narrow range of targets. Any point target that brings effective fire against friendly forces, and that cannot be destroyed by some other indirect or direct fire means, is a TOW missile target. Enemy bunkers, dismounted ATGM positions, and helicopters — as well as tanks, personnel carriers, air defense vehicles, and artillery positions — are all appropriate ITV targets. Because of the enemy's capabilities, however, coupled with the availability of ammunition, a stringent delineation of target priorities may be necessary. If the enemy has a large number of tanks on the objective, or if he is expected to counterattack with a heavy armored force, then the battalion commander should specify any target limitations for the ITVs.

### **Consolidation**

Once the objective has been seized and the primary elements of the attacking force have begun to consolidate, the ITV platoons should begin moving to their objective positions. In many cases, especially if the enemy resistance had been tough, the ITVs will be low on missiles



ITV commander checks line of sight through the periscope.

or out of them entirely. It is therefore smart, whenever possible, to have an ammunition resupply truck under the control of the Echo executive officer or first sergeant ready to move forward from the combat trains to a designated resupply point. This movement must be done rapidly to allow the ITV platoons to re-arm quickly enroute to their consolidation positions. If time and distance factors do not allow re-arming enroute, then a designated section from each platoon should move to a re-arm position and load as many missiles as it can carry and deliver them to the other vehicles in the platoon.

As in any defensive situation, terrain permitting, the long range fires of the ITV platoons are critical to the successful consolidation of the objective and to the defeat of the expected enemy counterattack. The Echo commander must conduct a METT-T analysis to this end. Once the objective has been seized, he must position his ITV platoons, fully re-armed, where they can best defend against the enemy's probable avenues of approach.

## THE DEFENSE

The defense, by its very nature, offsets many of the limitations and vulnerabilities the ITV faces in the offense and also makes the most of its capabilities and its strengths. For one thing, the options for employing a battalion's ITV assets are significantly more varied in the defense than in the offense. (For purposes of this discussion, it will be assumed that a battalion task force is operating as part of a division main battle area force.)

A battalion's defensive mission and the terrain over which the battle will be fought are the primary factors a battalion commander will consider in determining his ITV task organization. For a defend-in-sector mission, in which centralized ITV fire control is desired, a battalion

commander can choose to keep his Echo assets pure. He can better control the ITV fires on specific engagement areas and, through the Echo commander, can quickly maneuver the ITV platoons to overwatch or defensive positions to cover the movement of his company teams from position to position.

This same responsiveness is present when the battalion is defending in place. The mobility of the ITV platoons gives the Echo commander a great deal of flexibility in responding to the situation as the battle develops. As in the offense, this ability of the Echo platoons to maneuver also allows a battalion commander to deal with an enemy force without a major repositioning by his company teams or a premature commitment of his reserve.

When factors of METT-T do not favor a centralized retention of ITV assets, a battalion commander can attach an ITV platoon to another company team and employ the remaining ITV assets as an Echo Company (minus). Or the battalion commander can parcel out his ITV assets and make Echo a company team.

In the latter configuration, an Echo team can be employed the same as any other company team. (A task organization of five company teams, in fact, gives the battalion commander more options: He can position four elements forward with one in reserve, or he can place three company teams forward, hold one to give his position depth, and use the fifth in a reserve role.)

When Echo Company (minus) is employed as a company team, with a mechanized infantry rifle platoon and on occasion with a tank platoon as well, the Echo team should be positioned where its assigned sector or battle position allows it to cover as much of the primary antiarmor kill zone (AKZ) as possible.

Ideally, the AKZ should be along the enemy's primary mobility corridor at a range of 1,500 to 3,800 meters from the company team positions, but these ranges will not always be attainable. (The minimum AKZ should extend



from 1,500 meters out to the greatest possible effective range.) Whether the ITV platoons are under centralized control or not, the AKZ must be further subdivided into company team and ITV platoon engagement areas to achieve effective fire control. The platoons must not duplicate targets any more than necessary.

Between the range of 2,000 and 3,700 meters, the ITVs engage the enemy. As the enemy comes in to a range of 2,000 to 2,500 meters, the tank platoons engage these targets. As he closes to Dragon range, the Dragons and tanks maintain the fight.

Two or three ITV sections should be positioned in depth 1,000 to 1,500 meters behind the forward elements. These ITVs can then provide continuous fires while achieving the best stand-off ranges against any remaining enemy forces that may try to penetrate the main defensive line.

As the enemy closes to within 1,500 to 2,000 meters, the forward ITVs should begin moving to their alternate positions to maintain their range advantage and to reduce their close-in vulnerability. If the battalion intends to hold its forward position, lateral movement by the ITVs to alternate firing positions becomes essential, but a decision to move to those positions before the enemy closes to 1,500 meters must be carefully weighed. For example, it takes three or four minutes for an ITV section to move to an alternate position 300 meters away — longer if the route is not direct or easily traversed. The loss of its firepower for that amount of time can be critical, particularly if more than two sections are displacing. Of course, the survivability of the ITV and its crew must be maintained, but any significant loss of ITV firepower from the AKZ is potentially detrimental to the battalion's success. Unless the forward position is under ATGM or accurate indirect or direct fires, ITVs should not displace to their alternate positions until the enemy has closed to within a range at which tanks can take over — 1,500 to 2,000 meters.

If the mission is to defend in sector, the decision to move to alternate positions must be made before the enemy closes to less than 2,000 meters, and the movement order must be well into its execution stage by the time the enemy reaches 1,500 meters. (Experiences at the NTC have clearly shown that if a commander waits too long to give the appropriate orders, or if the task force fails to move quickly enough, a task force will be overrun or the enemy will be so close behind that he will literally occupy the next position at the same time as the task force.)

By positioning two or three ITV sections in depth, a battalion task force provides itself an overwatch element for any movement it must make from the forward defensive positions. Regardless of the task organization, the ITVs should be the first element to displace to alternate positions. There are several reasons for this: The ITV's longer range allows better overwatch for the other teams; once displacement is triggered, the enemy is usually within effective friendly tank fire range; and the ITVs are much more vulnerable to enemy tank and ATGM fires, given their comparative lack of armor protection.

One real Echo Company limitation, whether it is

employed as a team or pure, is its lack of a fire support team (FIST). Thus, when necessary, the Echo commander must do the detailed time-consuming fire support work that a FIST chief normally does.

## VERSATILE

Despite the lack of a FIST, the antiarmor company is a versatile unit. This versatility adds tremendously to the potential combat effectiveness of the Division 86 mechanized infantry battalion task force. This is particularly true for the M113-equipped units that are not scheduled to change over to Bradley Fighting Vehicles in the near future. These units must rely solely on the ITV as their long-range tank killer. It is therefore important for a commander to make the most of his Echo Company.

For the BFV battalion task force, particularly when it works with tank companies that are equipped with the Abrams, the ITV is not as crucial to its long-range combat power. Still, the primary mission of the ITV platoon is to augment the task force's fires with the long range fires of the TOW system — a singular task that the BFV and its infantry squad are not expected to perform, given the five-missile capacity of the BFV. Even with the greatly increased armor killing ability of the BFV task force, though, the task organization options for using his ITVs are as important and potentially favorable to a BFV task force commander as they are to an M113 task force commander.

The lack of a battalion task force operational doctrine that incorporates a "how-to" for Echo Company reduces the potential combat effectiveness of our Division 86 units. This void is now being filled through unit initiative, but the result is an obvious lack of inter-unit standardization. The specific doctrinal roles an Echo Company is to play in combat must be clearly established. If an active maneuver role is to be its primary mission, then the battalion logistics and fire support capability must be broadened to adequately support the company in this role.

Until an antiarmor system is fielded to replace the TOW, that weapon will continue to be a battalion's mainstay for long-range antiarmor fires. When it is mounted on an ITV, its accuracy is complemented by better survivability and mobility. The ITV system, integrated into a combined arms fire plan, makes a task force's long range fires far more lethal.

This firepower, combined with the maneuver command capability of an Echo Company headquarters, is a critical combat force. But that force must be employed properly by brigade and battalion task force commanders if it is to succeed on the battlefield.

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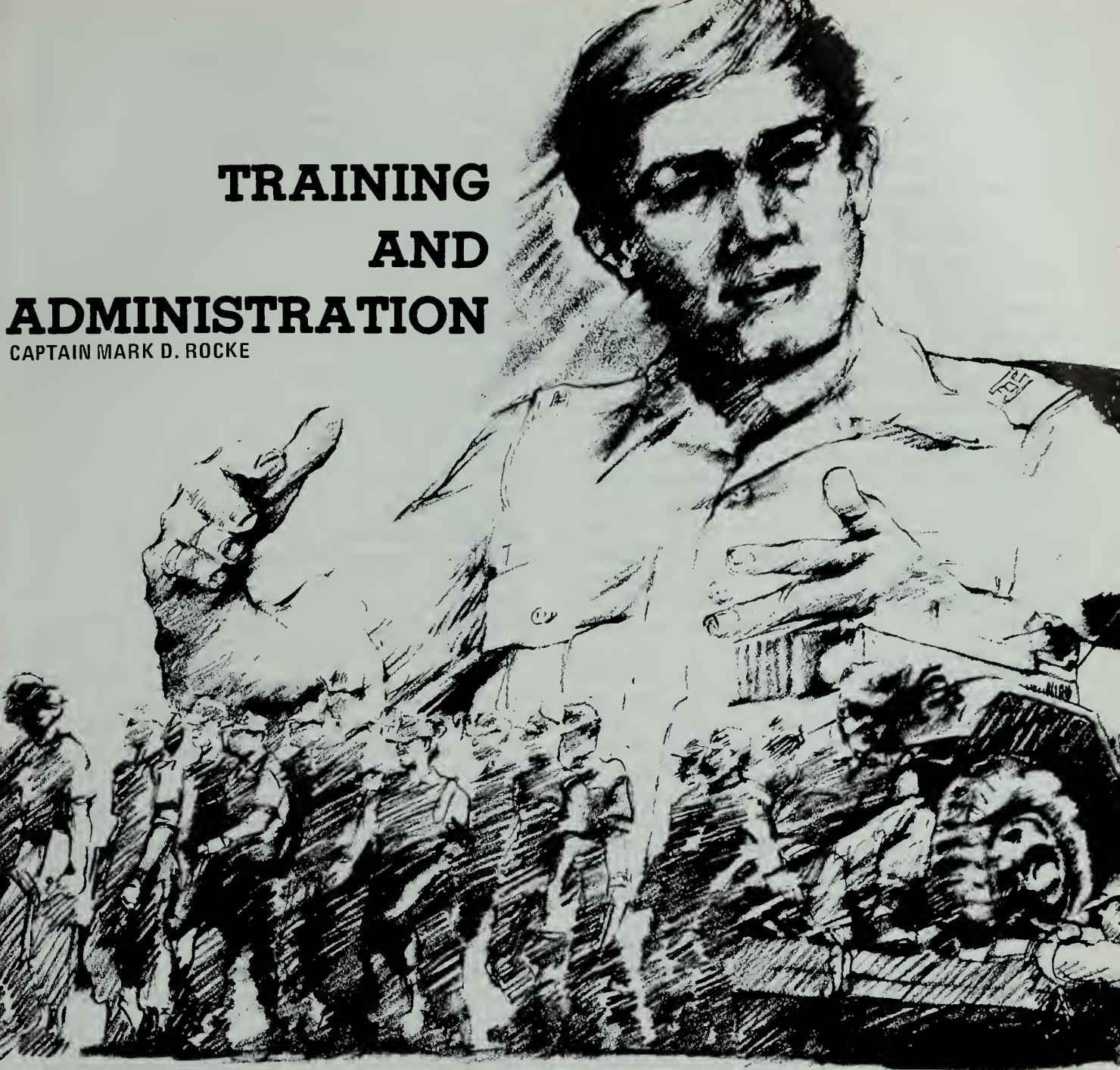
**Captain Michael S. Hackney** has led a rifle platoon and an antitank platoon in the 3d Armored Division and has commanded Company E, 2d Battalion, 34th Infantry at Fort Stewart. He is now commander of the headquarters and headquarters company of the same battalion. He is a 1979 ROTC graduate of the University of Alabama and has had two previous articles published in *INFANTRY*.

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# TRAINING AND ADMINISTRATION

CAPTAIN MARK D. ROCKE



The single most important responsibility of a company commander is to train his soldiers to fight and win on the battlefield. His primary mission, as mandated by the United States Army, is to achieve and maintain combat proficiency through collective and individual training. But combat proficiency results only from an interdependence between effective training, administration, and maintenance. Of these three, administration is the most time consuming. In fact, a recent survey conducted in the 24th Infantry Division concluded that its company commanders spent as much as 59.4 percent of their time on administration, 27.5 percent on training, and 8.6 percent on maintenance. A survey in other divisions would probably reveal similar figures.

Given these statistics, a commander must develop a comprehensive, realistic approach to unit administration so that it will not interfere with training. In addition, he must fully understand his responsibilities for choosing and planning training tasks and for effectively managing his limited training resources. At the same time, of course, his unit must conduct a systematic maintenance program that will insure the availability of organic equipment for training, and operators, crews, mechanics, and supervisors must be trained in the full scope of organizational maintenance.

Clearly, if a company commander expects to concentrate on training his unit, he must first control the administration of it. And if he expects to get administration under



control, he must first understand its unique requirements.

Company level administration consists of the following major areas:

- Personnel actions.
- Additional duties.
- Commodity area management (arms, supply, NBC, communications, and motor pool).
- Army programs and campaigns.
- Details, guards, and taskings.
- Billet maintenance.

Personnel actions consist of things the commander must do to take care of the soldiers, noncommissioned officers, and officers assigned to his unit. This includes counseling, awards, efficiency reports, and administrative procedures for elimination or reduction. It also includes promotion boards, judicial and non-judicial punishment, dependent counseling, and family assistance programs.

Additional duties are the mission, administrative, housekeeping, and personnel-related responsibilities assigned to officers in addition to their primary duties. Additional duty officers are commonly viewed as being special staff officers who assist the commander in particular functional areas. Although each of the duties contributes to the overall accomplishment of the command's mission, together they also place a large supervisory burden on the commander.

(The number of additional duties varies. In a 1979 study performed by the Army Research Institute, 29 common additional duties were identified. *The Army Officer's Guide* identifies 41 such duties, while a 1982 24th Infantry Division workload assessment revealed that the number of perceived duties ranged from 54 to 81.)

Supervising the officers when they perform their assigned additional duties is critically important to a commander because many of these duty areas are inspected during the Annual General Inspection (AGI). The results of this inspection are generally considered an accurate and lasting assessment of a unit's organizational efficiency. As a result, the amount of time and energy spent in the performance of additional duties usually increases as the date for the unit's AGI inspection comes closer. (The same ARI study mentioned above concluded, however, that additional duty requirements were difficult to determine, poorly managed, and over-emphasized as an indicator of both unit readiness and officer efficiency.)

Much like additional duties, commodity area management requires an excessive amount of time for record keeping, paperwork, and adherence to rigidly defined, inflexible procedures. While these tasks are normally supervised by the executive officer, the respective commodity chiefs, and the additional duty officer, the commander bears the ultimate responsibility for performance and must dedicate a good deal of his time to supervising them. Moreover, by regulation, many inspections and inventories must be conducted by the commander himself.

The commander's most significant and time consuming responsibility in managing commodities is property accountability. The following summary from a recent book

#### SUBJECTS IN POLICY BOOK

Junior Officer/NCO Development  
Enlisted Evaluation Reporting  
Performance Counseling Program  
Unit Awards/Incentive Program  
Physical Security  
CTA-50-900 Storage  
Key Control  
Unit Leave and Pass Policy  
Reenlistment  
Physical Training  
Athletics and Recreation  
Open Door  
Equal Opportunity  
Sexual Harassment  
Drug and Alcohol Abuse  
Hometown News Release Program  
Army Suggestion Program  
Savings Bonds  
Dayroom Policy  
Restriction  
Contraband Items  
Inprocessing Checklist  
CTA-50-900 Display  
Room Display  
Cold Weather Procedures  
Accountability and Security of Commodity Areas  
NBC Room  
Arms Room  
Motor Pool  
Communications Room  
Supply Room

Figure 1

by Colonel Dandridge Malone shows the extent of this responsibility:

*In the least complex and most humble of fighting companies in our Army today, there are 169 men. For each of these men, there are 66 items of equipment and clothing that belong to him. There are at least 20 items given to him by the company. And the company itself has 866 more items of equipment and weapons that the 169 men use when the whole unit fights.*

As the hand-receipt holder for all of the items listed on the unit property book, the commander is directly responsible for this property. He bears supervisory responsibility for the Common Table of Allowances (CTA) 50-900 property as well as all of the items that make up the soldiers' personal clothing bags. The rational and prudent commander will therefore adhere to all of the specified procedures and will develop appropriate internal programs to safeguard this property. It is an understatement to say that the military organization is unforgiving toward the commander who cannot accurately account for the installation, organization, and CTA property under his control. Another time-consuming activity in this regard, and one of much larger proportions, is the necessity for a company commander to retrain new key leaders and commodity chiefs when their predecessors are reassigned unexpectedly.

Army programs and campaigns include such things as the Lifestyle Weight Control Program, the Hometown News Release program, the Combined Federal Campaign,

Savings Bond drives, and Army Emergency Relief activities. Local fund drives for divisional and regimental locations must be supported as well.

Details, guards, taskings, and billet maintenance are also necessary, and they, too, take away from training time.

The complexity of the company commander's managerial problems is made even more intense by the organizational environment in which he functions. Perhaps the most distinguishing characteristic of a military organization, particularly an infantry battalion, is the premium it places on performance. According to Field Manual 22-100, a commander is "responsible for everything his unit does or fails to do." The assignment of this personal responsibility must be viewed in relation to the duty concept of the professional officer, which is both a baseline value and a time-honored tradition. In simplest terms it means that the mission will be accomplished regardless of personal cost or preference.

To accomplish the mission — to keep abreast of the broad scope of activities in a unit on any given day and to influence these activities — a commander must manage his time judiciously. (A great deal of that time, unfortunately, has to be spent in dealing with telephone calls, impromptu meetings, minor crises, and serious incidents. In addition, he must deal with shifting demands, competing priorities set by higher headquarters, and time-sensitive requirements.)

What a commander really needs is a model to guide him in approaching his administrative and training tasks. I developed such a model while I was serving with the 82d Airborne Division and have since adapted it for use in the 2d Battalion, 75th Infantry (Ranger). The two-part model includes a policy book and a company training management book that any company commander can use to develop his

own personal approach.

(Although this model does not independently address maintenance, its underlying logic can be applied to the establishment of an effective maintenance program that will insure the availability of organic equipment for training.)

The policy book contains 31 policies, which were developed over my 18-month tour of company command in the 2d Battalion, 505th Infantry. The book evolved from the application of some basic leadership principles in a sequential process. A list of the topics included in this book is shown in Figure 1.

To develop a similar book of his own, a commander should first determine what policies his unit needs by thoroughly analyzing its mission. Then he should develop the policies, publish them, distribute them, and enforce them. (One of the problems is that higher levels of command place various requirements upon companies in the form of regulations, field manuals, technical manuals, bulletins, circulars, and messages. And these written requirements are often open to a wide variety of interpretations.)

By laying out the procedures to be followed for a wide range of administrative activities as early as possible after assuming command, however, the commander can avoid answering the same questions again and again. At the same time, he can instill discipline in his unit because his procedure will demand that his people, even in his absence, reach the desired level of performance.

In an attempt to extract the requirements for my company and to put them all together, I developed a matrix that I call "Garrison Training Tasks and Administrative Responsibilities," a portion of which is shown in Figure 2. The matrix, which is part of my policy book, is used as a checklist for measuring progress in each area. It is also

### GARRISON TRAINING TASK REQUIREMENTS AND ADMINISTRATIVE RESPONSIBILITIES

TASK	D	W	M	Q	S	A	OTHER	REFERENCES/REMARKS
Opportunity Training	*							
Opportunity Training Evaluation		*						
Equal Opportunity						*		AR 600-21
Human Self Development				*				AR 600-30
Alcohol and Drug Abuse					*			AR 600-85
Urinalysis/Drug Detection Teams							*	AR 600-85, As Req'd.
Organizational Effectiveness	*							AR 600-76
Check Cashing					*			CSA Directed 210-60
Command Information						*		AR 360-81
Benefits of an Honorable Discharge						*		AR 350-21
Electronic Security								
The Army Safety Program								

Figure 2.



## COMPANY COMMANDER'S TRAINING MANAGEMENT WORKBOOK

### Table of Contents

#### INTRODUCTION

- Brigade Commander's Preface.
- Company Commander's Training Management Guide.
- Required Training References.

#### CHOOSING TRAINING TASKS

- Requirements.
  - Company mission/task analysis lists.
  - Training task requirements (Div Reg 350-1).
  - Garrison training task requirements and administrative responsibilities.
- Commander's Guidance.
  - Brigade commander's training notes.
  - No notice NBC callout (TRI-NC).
  - Division Artillery Standardization Letter #8 (H-Hour sequence for airmobile assaults).
- Diagnostic Data.
  - ARTEP results (most recent evaluation for all levels).
  - Specialty platoon competition results.
  - SQT/EIB/EFMB results.
  - Division commander's APRT results.

#### PLANNING TRAINING TASKS

- Long Range (16+ weeks out).
  - Review training calendars/MTP.
  - Training suspenses/quick reference numbers.
  - Example OPT/JA/ATT requests (FB 1295-R).
  - BTMS mission analysis data.
  - Priority training tasks (developed by company commander).
- Medium Range (7-16 weeks out).
  - Appropriate cycle guidance/attachment worksheet.
  - Battalion commander's guidance.
  - Example letter of instruction (company weapons squad competition).
- Short Range (6 week lock-in).
  - Training management worksheets.
  - Request for use of ranges and training areas (FB 1528) and letter of instruction for training area occupation, clearance and police.
- Short Range (6 week lock-in).
  - Training schedule guidance letters.
  - Training schedules and training reference guide.
  - Training support requests.
  - Aviation requests (FB 2322-1-R).
  - Third brigade training records management and operations NCO guide.

Figure 3.

valuable in delegating specific responsibilities to members of the company chain of command.

The commander who understands the requirements that have been placed on his unit and uses his policy book to conduct periodic internal reviews will be making great progress toward controlling administration so that he can concentrate on training. By clearly defining for the members of his command both their individual responsibilities and the effect of their performance on the group, he will also be making them feel like they're contributing to the overall goals of the organization. The matrix helps guide the company to a unity of effort, which, in turn, develops cohesiveness.

Clearly, there are no hard and fast rules to define the scope of a company policy book. A commander can include as many or as few policies as he chooses, provided he has addressed the topics that are mandated by regulations and

directives. The key point is that the establishment and publication of policies provides a point of reference by which a fair and equitable command climate in the unit can be ensured.

The success of the book will depend in large part on the way a commander incorporates the views of his subordinates into the process of formulating the company's policies. In addition, the announced policies must be rational and flexible and must be updated periodically to meet the needs of the unit and to include any new guidance from higher headquarters.

The second part of the model is a company training management system, which I prepared (with guidance from my battalion and brigade commanders) for inclusion in a workbook designed to help unit commanders plan and execute training. The workbook's table of contents is shown in Figure 3.

(The original workbook includes a cover letter in which the brigade commander spelled out his training goals; a company commander's training management guide; a list of required training references; company mission and task analysis lists; and a training task requirements matrix. Copies of these documents, as well as copies of the other documents mentioned in this article may be obtained from the Editor of INFANTRY Magazine.)

This system forces a commander to analyze his company's broad training mission and then to delineate the specific tasks to be accomplished, along with how often each needs to be done.

In an environment in which it seems that everything is first priority, the training management book provides a simple, pragmatic approach to determining objectives and priorities for the use of a unit's resources. The commander who applies such a system will be forced to actively direct the training of his unit and, in so doing, work to develop combat proficiency, which is his primary responsibility.

If the commander applies sound managerial techniques, he can improve his unit's administrative performance and also limit the amount of time he must spend dealing with it. In the process, he will also improve the organizational efficiency of his unit, boost morale, and eliminate the constant tension within the unit between expectations and realities.

Ultimately, he will be able to concentrate on implementing high-quality, well-resourced training programs that will develop his unit's proficiency and ensure its success on the battlefield.



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JAMES A. HUSTON

## THE 82d AIRBORNE DIVISION IN SICILY

In a conference at Casablanca in January 1943, President Franklin D. Roosevelt and Prime Minister Winston S. Churchill accepted the recommendation of the United States-British Combined Chiefs of Staff that the next allied objective in the Mediterranean after the North African campaign had been concluded should be Sicily. The target date was "the period of the favorable July moon."

The objective might have been Corsica, or Sardinia, or perhaps Crete in the Eastern Mediterranean. Corsica and Sardinia were more lightly defended and might have been springboards for an invasion of Italy in the vicinity of the Po Valley — with a view to "sawing off" the Italian boot instead of fighting up its entire length — or for an earlier invasion of southern France. But it was none of these. It was Sicily, because the military chiefs and the national

leaders concluded that this would involve less risk to the shipping needed for the assault waves and follow-on support; that the control of Sicily would be an important advantage in the security of sea lines of communication through the Mediterranean; that its airfields would be more useful in the further bombing of Italy; that it would provide a convenient jumping off place for an invasion of the Italian mainland; and that its capture would be decisive in persuading Italy to leave the war.

Four months after the Roosevelt-Churchill conference, the 82d Airborne Division, commanded by Major General Matthew Ridgway, arrived at Casablanca. Within a day or two, leaders of the division knew that they were scheduled to parachute into Sicily on the night of 9 July. After three days in a staging area eight miles outside Casablanca, the division set out by train, truck, and



plane for Oujda and Mahrnia, site of the Fifth Army Airborne Training Center, in the northeast corner of the country near the Algerian border and close to the Mediterranean Sea.

After six weeks of sleeping on the ground in rows of pup tents and facing daily duststorms and blistering heat (and also weakened by that universal malady of army life in strange lands — dysentery), the men of the 82d Airborne were ready to jump into battle anywhere just to escape.

Under the overall command of the British General Sir Harold R.L.G. Alexander and his 15th Army Group Headquarters, General George S. Patton's newly organized U.S. Seventh Army with its single II Corps under Omar Bradley was to make the assault in the Gulf of Gela. At the same time, the British Eighth Army, under General Sir Bernard L. Montgomery, on the right, was to attack at the corner of the island, Cape Passero, and through the Gulf of Noto as far north as the vicinity of Syracuse.

In the U.S. zone the 45th Infantry Division, on the right, would assault a wide stretch of beach on either side of Scoglitti; the 1st Division, in the center, would hit Gela and capture the Ponto Olivo airfield, about five miles inland; and the 3d Division, on the left, would go for the beaches and the airfield around Licata.

Not enough airlift was available for either the 82d or the British 1st Airborne Division to be fully committed on D-Day. On the British side a glider brigade was to lead the way, in the manner of the Germans on Crete in 1941, with an assault on Ponte Grande, just south of Syracuse. For the Americans, the parachute troops would lead. For this mission Ridgway chose the 505th Regimental Combat Team, including the 456th Parachute Field Artillery Battalion, and reinforced it with the 3d Battalion, 504th Parachute Infantry, all under the command of Colonel James Gavin.

The planners' first thought was to use the paratroopers directly against the beach defenses. Later, this was changed to a mission of seizing key points — primarily in the 1st Division zone — to block the movement of enemy counterattacking or reinforcing units and to clear the way for the seaborne forces to move rapidly inland. Specifically, the paratroopers were to seize the high ground known as Piano Lupo east and northeast of Gela and to assist the 1st Division in the capture of the Ponto Olivo airfield. After a link-up with the 1st Division had been effected, General Bradley planned to attach the 3d Battalion, 504th Infantry, to the 1st Division to help in capturing Niscemi, which was about five miles to the northeast of the Ponto Olivo airfield. The remainder of the 504th Infantry Regimental Combat Team was to assemble near Gela as a 1st Division reserve. The airborne planners hoped for a link-up with the 1st Division within a few hours, but they planned for Colonel Gavin's units to receive an initial resupply by air.

The defenses of Sicily were in the hands of 200,000 men of the Italian Sixth Army — rather poorly trained,

organized, and equipped — and two well-trained and equipped German divisions, the 15th Panzergrenadier Division and the Hermann Goering Division, which arrived in Sicily in June. The 15th Panzergrenadier Division moved to the western part of the island while the Hermann Goering Division concentrated most of its elements at Caltagirone, about 20 miles northeast of Gela and prepared to launch a counterattack against any beach landings in that area.

Thanks to the Ultra system, by which the Allies were privy to the German code and thus could eavesdrop on German radio communications, Alexander, Montgomery, Patton, and their staffs knew of the whereabouts of the two German divisions in Sicily. They also knew that Colonel Gavin's soldiers were likely to encounter the Hermann Goering Division soon after landing. Yet they dared not pass this information on to the 82d, so they thought, because some captured paratrooper might disclose the information, an action that might compromise Ultra itself. (Surely aerial reconnaissance and photography should also have revealed the presence of those divisions, but Allied intelligence summaries, unfortunately, were silent on the matter.)

When it came down to the individual airborne infantry battalions, it may not have made any difference anyway. Known enemy dispositions might have influenced the location of their drop zones, but whatever the enemy, the order was to attack.

Meanwhile, the airborne forces continued their training. Small unit leaders studied sand-table models of the Sicilian terrain; battalions rehearsed their ground attacks on replicas of their objectives set up in the training areas; troop carrier and airborne commanders coordinated loading plans and memorized aerial photographs of the objective area.

On a June night just a month before D-Day when conditions were expected to be similar, Gavin and some other airborne leaders were able to make a night aerial reconnaissance over the route they would follow for the attack — east from Kairoun, Tunisia, over the island of Linosa to Malta and from there, after a sharp turn to the north-northwest, to Gela, Sicily. The weather that evening was perfect. Calm and peaceful, the whole Mediterranean lay bare under a bomber's moon. The checkpoints appeared on schedule. As the flight approached Sicily, land first came into sight on the right, just as it was supposed to, and the terrain below matched the aerial photographs they had memorized — and which the pilot also carried in his cockpit. Gavin wished that this were the invasion itself, because everything seemed perfect for it.

Final preparations hastened. Ridgway chafed at the lack of fighter protection to be provided for the troop carrier columns — the fighter planes were to be off on other missions judged to be of higher priority.

Friday, 9 July, dawned calm and clear — as nearly all summer days did in Tunisia — and the airborne soldiers soon were busy checking equipment and loading planes.



High winds were springing up by late afternoon, though, as the men, wearing white bands pinned to their sleeves for identification and carrying heavy packs of equipment and weapons, climbed aboard the planes.

The sun was setting as the planes of the U.S. 52d Troop Carrier Wing began roaring down the runways with the paratroopers of the 505th Combat Team. Only now were the men told their destination, and each was given a slip of paper with a message from Colonel Gavin:

*Soldiers of the 505th Combat Team.*

*Tonight you embark upon a mission for which our people and the free people of the world have been waiting for two years.*

*You will spearhead the landing of an American Force upon the island of Sicily. Every preparation has been made to eliminate the element of chance. You have been given the means to do the job and you are backed by the largest assemblage of air power in the world's history.*

*The eyes of the world are upon you. The hopes and prayers of every American go with you.*

But both chance and mischance rode with them that night.

Fighting a 35-mile-an-hour wind, the aerial formations soon loosened and the planes scattered. Most of the planes failed to come in sight of even the principal checkpoint, Malta, and the midnight moon was of little help. As their aircraft crossed into Sicily early in the morning of 10 July, the airborne leaders looked in vain for the landmarks they had memorized from photographs, landmarks that had shown up so clearly a month earlier. Unfortunately, pre-invasion bombing had stirred up a ground haze, which made landmark identification still more difficult.

The pilots took evasive action as some antiaircraft fire came up, and this caused further scattering. Completely lost, two pilots turned around and found their way back to North Africa. Another crashed into the sea. But the orders were to drop every parachutist and every piece of equipment somewhere in Sicily, even if the correct drop zone could not be found. And drop they did.



The careful selection of drop zones and the detailed plans of attack for specific objectives now seemed almost irrelevant. From now on, this would be a battle of improvisation, a free-lance affair.

The paratroopers were scattered all over southeastern Sicily — as far apart as 50 and 60 miles — from Cap Moto to Licata. Thirty-three plane loads landed in front of the British Eighth Army — much to the surprise of everyone; 127 sticks came down inland from the 45th Division beaches between Vittoria and Caltagirone; 53 — less than half — landed in the zone of the 1st Division, around Gela, where they were supposed to, and even these were widely scattered. Only one battalion made it to the ground relatively intact, but it was 25 miles from its designated drop zone.

## ACTION

Wherever they were, small groups and individual soldiers began moving about to find each other and to try to find the direction toward their assigned objectives. As they did so, they fell upon Italian and German defenders, supply parties, and communication lines and centers wherever they could find them. All day, paratroopers engaged in isolated, small-unit actions, though a number were involved, along with the 16th Infantry and the 180th Infantry, in stemming enemy counterattacks. The Italian and German commanders were confounded in their efforts to determine the location of the main parachute force.

The amphibious landings began at 0245. Heavy surf, stirred by the high winds of the night, threatened some of the landings. British and Canadian soldiers of the Eighth Army had little trouble getting ashore over the more sheltered beaches around the southeastern corner of the island. For the Americans it was more difficult, but by daylight infantrymen of the 45th, 1st, and 3d Divisions were moving inland everywhere except around Gela in the 1st Division's sector. Here, there was trouble in getting artillery pieces ashore, and nowhere was it possible yet to bring in tanks in any numbers. Enemy counterattacks in this area became stronger and stronger.

Colonel Gavin spent most of the day playing hide and seek — hiding from the enemy and seeking his paratroopers. On landing, he had found himself in the 45th Division zone near Vittoria. He tried to move north-westward, the direction in which he perceived his objective to be. But with only a small party of paratroopers, he had to play the role more of a squad leader on a patrol than of a regimental commander in an assault. After encountering enemy groups here and there, he lay low for the rest of the day and then took advantage of darkness to move up toward the sounds of the German counterattacks.

Arriving on General Patton's command ship at Gela about dawn, General Ridgway borrowed a sergeant from General Terry Allen's 1st Division staff and, with his own

aide, set out on his own game of hide and seek. After a few hours of walking and crawling around out in the unknown beyond the 1st Division's front lines, Ridgway's only contact with a friend was with General Theodore Roosevelt, Allen's assistant division commander, who was wandering around out there in a jeep. Ridgway's only contact with the enemy was with a low-flying Messerschmitt. Presently he came upon a lone paratroop officer sitting under a fig tree, trying to get some relief for his ankle, which had been broken in the jump. Soon he began to encounter a few groups of paratroopers. Then he went back to Allen's 1st Division headquarters to report on what he had found and to establish communication with the 504th, which was waiting in Tunisia for the follow-up flight.

The 504th had been scheduled to come in that night, the night of D-Day, but in view of the threatening counterattacks in the center, Patton postponed the airborne reinforcement, tentatively until the next night, in favor of landing elements of the 2d Armored Division and the 16th Regimental Combat Team from the floating reserve to plug a gap in the 1st Division's center.

By nightfall on 10 July, things had quieted down. Both the U.S. Seventh Army and the British Eighth Army were consolidating their positions. Only in the Seventh Army's center, in the zone of the 1st Division, did the issue remain in doubt. Here, the German and Italian counterattacks finally had been stopped. But they could be expected to resume the next day.

## COUNTERATTACK

At 0615 on 11 July, with the support of air attacks on the beaches and against the naval vessels, the enemy struck again. An Italian column swept past the 26th Infantry and was bearing down on Gela when heavy concentrations of artillery stopped it. General Patton himself came ashore about 0930 and went to a rooftop observation point. Watching the approach of enemy tanks, he turned to a naval ensign and shouted, "For God's sake drop some shellfire on that road!" A barrage of six-inch shells was the prompt response.

German tanks struck the paratroopers and the 2d Battalion, 16th Infantry on the Abbio Priolo ridge. With effective support from the 7th Field Artillery Battalion, they were able to hold fast. Under cover of field artillery and naval gunfire, the paratroopers and the infantrymen pulled back slowly, and by 1100 were back at Piano Lupo where they had started from earlier that morning.

On the right, in the zone of the 45th Division, another column of the Hermann Goering Division was rolling westward along Biazzo Ridge from the vicinity of Biscari toward Biscari Station.

In the meantime, Gavin, after gathering paratroopers in the vicinity of Vittoria, was moving toward Biazzo Ridge. He found a platoon of engineers to go with him as infantry and moved on up the ridge, but he and his men

were quickly pinned down by intensive small arms fire.

Farther to the west, tanks of the Hermann Goering Division rolled on toward the 1st Division beaches. The lead tanks came within 2,000 yards of the water's edge and began taking supply dumps and landing craft under fire. The German commander issued a premature report that the Americans were re-embarking. It was premature because a field artillery battalion came ashore just in time to open direct fire on the tanks, the 16th Infantry Cannon Company joined in from the dunes, and four medium tanks came ashore. Engineers joined infantrymen on the firing line. As the German tanks began to pull back, deadly naval gunfire took after them. Sixteen German tanks lay disabled before Gela.

At 1400 Gavin was able to attack the Biazzo Ridge with more strength and purpose. The men moved up the ridge and then, in the face of heavy fire and the threat of tanks, down the other side. The Germans scattered in front of the attack, and before dark Gavin pulled his men back to the top of the ridge to organize a defense line.

Meanwhile, the naval gunfire had in effect destroyed the attacking columns of the Italian Livorno Division north of Gela. The beachhead appeared to be secure. And airborne reinforcements were on the way, for General Patton had ordered the 504th Regimental Combat Team (less the 3d Battalion, which had jumped with the 505th) to come in that night. Accordingly, General Ridgway, who was still on shore was kept busy trying to coordinate its arrival. He was especially worried about the troop-carrying aircraft flying in low over the naval vessels off the coast and then over the battle positions on the beachhead.

He had reason to be worried. During the planning for the Sicily invasion, Ridgway, incredibly, had been unable to receive assurances that his airborne units would not be fired upon by the ships. Virtually at the last minute, after repeated efforts, he finally exacted a promise that the ships would not fire on his airborne soldiers — provided the troop carriers kept close to their designated route and made sure they arrived over Sicily at Sampieri, at the extreme right (east) flank of the Seventh Army Zone, and then flew northwest keeping to an altitude of 1,000 feet through a two-mile wide corridor for the 30 miles to the Gela-Farello landing zones.

Checking on anti-aircraft artillery crews in the area of the 1st Division on the afternoon of 11 July, Ridgway found that five out of six had been warned to expect a paratroop jump on the Gela-Farello field that night. He then obtained further assurances from the anti-aircraft battalion commander that all crews would be warned before the afternoon ended.

## REINFORCEMENTS

Within minutes after his order to have the 504th fly in that night to reinforce the 1st Division's beachhead, Patton at 0845 had sent a priority message to all his principal subordinate commanders directing them to

notify their units that parachutists would drop on the Gela-Farello landing field about 2330 that night.

Unfortunately, enemy aircraft had struck sporadically at the beaches all day. At 1540, about 30 Junker dive bombers attacked. Several bombs fell harmlessly around the cruiser *Boise*, but one hit an ammunition ship, the Liberty ship *Robert Rowan*, which blew up and sank in shallow water where smoke from her exposed bow became a reference point for later waves of enemy bombers.

This night, 144 troop carriers with 2,000 paratroopers of the 504th Combat Team took off from Tunisia into calmer weather than the 505th had had. In a basic V of Vs formation, the aerial column flew essentially the same dog-leg route but this time kept in better formation. A few rounds of anti-aircraft fire came up from Allied shipping north of Malta but caused no harm. Some of the troopers gazed down at the calm sea while others dozed in their bucket seats.

## INTO THE CALM

An hour ahead of the troop carriers, though, Axis planes returned for a massive strike on the Gela beach area. A rain of bombs damaged numerous ships with near misses. As on other such occasions earlier in the day, the transport ships weighed anchor and dispersed. As the troop carriers with the 504th crossed the coastline at Sampieri and turned to the northwest, the enemy bombers withdrew. The anti-aircraft fire fell silent.

Into this calm flew the troop carriers. All remained quiet as the leading flight arrived over the drop zone, and the first paratroopers jumped into the still night. Then, as the second flight approached the final checkpoint and the first flights of the second serial were beginning their turns into the overland aerial corridor, and while the third serial was still over the sea, a lone machinegun broke the silence below. Then all hell broke loose. Within minutes it seemed that every gun in the vicinity, on land and sea, was turned on the low-flying, slow C-47s. The planes' display of amber belly lights as recognition signals made no impression on the nervous gunners. Clinging to enemy beach areas in the black night, edgy from the bombing attacks that had just taken place, the gunners responded to the opening of fire with a contagion that became worse as more flights arrived. Their fire, unhappily, was remarkably more effective against the transport planes than it had been against the German bombers.

Six planes with paratroopers still on board were shot down. Twenty-three planes were shot down altogether, and 37 were badly damaged. Several planes turned back to North Africa before their paratroopers had a chance to jump. Of those who did jump, several came under fire as they floated earthward, and many faced continuing fire on the ground. As pilots took evasive action and lost track of their landmarks, the formations became widely scattered. As had been the case with the 505th, the paratroopers of the 504th were scattered all the way from Gela to the east coast.



Without even meeting the enemy, the 504th Combat Team suffered 229 casualties, including 81 killed. The troop carrier wing reported 7 killed, 30 wounded, and 53 missing.

But the choice of the Gela-Farello landing ground as the drop zone could itself be brought into serious question. It had been generally assumed that the proper use of an airborne force was to land it deep in the enemy rear. The initial landing of the 505th — to the extent that it was where it was supposed to be — was between the enemy and the beach, not in the enemy's rear area. The drop zone of the 504th was even nearer the beach. Clearly this was a stop-gap measure, an effort to shore up the security of the beachhead, rather than a *coup de grace* aimed at breaking the enemy's resistance.

By this time the Seventh Army was ready to move inland to the phase line that would establish victory in the battle for the beachhead, and early on 12 July the 1st Division, in the center, moved out from the Gela area. Soon the beachhead was secure, and during the next several days Allied units consolidated their positions while Alexander, Patton, and Montgomery pondered the next moves.

On 19 July, with the 82d in the vanguard of a provisional corps along the coastal road on the left, Patton's Seventh Army rolled out to the north and northeast to overrun the eastern horn of the island and take the principal city, Palermo, on the northern coast.

In six days units of the 82d Airborne Division moved 150 miles through hostile territory and captured 15,000 prisoners while suffering only 23 casualties. The principal enemies had been the hot Sicilian sun, the choking dust of the roads, and the rough terrain.

While the 45th, 3d, and 9th Divisions turned eastward toward Messina, men of the 82d Airborne remained on what amounted to occupation duty in the rear areas in Trapani and Castellammare. They enjoyed more than three weeks of "R and R," (rest and rehabilitation) caring for and cleaning their equipment, undergoing the inevitable siege of intensive training, and swimming in the now peaceful waters of the Mediterranean.

On 12 August Patton summoned Ridgway and Gavin, together with the commander of the 52d Troop Carrier Wing, to discuss the feasibility of a parachute jump behind the German delaying forces in the coastal corridor. But the airborne leaders dreaded German tanks, while the troop carrier leaders dreaded their own antiaircraft fire. Everyone agreed that the terrain was too rough (yet this rough terrain, while a hazard to parachute jumping, should have offered protection from the German tanks). In any case, Patton decided to rely on a series of short amphib-

ious end runs instead of on a vertical envelopment to remove the obstacles. This decision allowed the 82d Airborne Division to sit out the remaining days of the campaign.

But in the final dash to Messina, there was not dash enough, for 40,000 German and 62,000 Italian troops managed to escape during the last six days across the Strait of Messina to live and fight another day. Here is where a massive airborne drop — on the Calabrian side of the strait — might indeed have been decisive in sealing off the escape.

Instead, the 82d assembled and flew back to Tunisia, there to prepare to fight under less favorable conditions at Salerno the German forces that had escaped from Sicily and the other German units that would come down from the north to man the defenses of the Italian peninsula.

While the leaders and the men of the 82d Airborne Division could feel a certain pride in sharing in one of the great Allied triumphs of the war in overrunning Sicily, they could not avoid the gnawing question as to whether their role in it really had been essential. No one, surely, would claim that without the airborne drop, the amphibious assault would have failed.

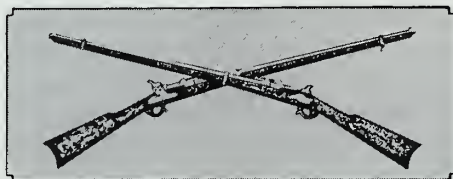
Actually, the 82d might have been far more effective in Sicily if it had been committed more boldly and imaginatively. But it was committed piecemeal, one regimental combat team at a time (and with a glider regiment that never did get into action), instead of in mass as a division. Its paratroopers jumped only a short distance beyond the beaches, in front of the enemy forces instead of in their rear. If the division had landed on the tablelands of the central plateau of the island, it might have been able to assemble and attack the enemy's rear areas and higher headquarters with a dispatch that would have put a quick end to the whole Sicilian campaign.

Near the end of the campaign, the division might have reassembled and jumped across the Strait of Messina to block the enemy's withdrawal. In that case it would not have contributed to a speedier conclusion of the campaign, but it might have made a really decisive contribution to the destruction of forces instead of simply in the capture of real estate.

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# TRAINING NOTES



## Drills

**MAJOR ROYAL A. BROWN III**  
**CAPTAIN MARK E. CROOKS**

One of the greatest challenges facing the platoon and squad leaders in our infantry companies today is in knowing how to conduct sound tactical training. To help these leaders meet this challenge, the U.S. Army Infantry School (USAIS) has developed for them a number of platoon level drills. They can use these drills to train their soldiers in critical collective, leader, and individual tasks to the proficiency necessary for their units to fight, survive, and win on the battlefield.

The drills developed by the School consist of actions that require rapid, spontaneous responses to an event, stimulus, or command with a minimum of direction from the leader. These actions can be trained to standard and executed repetitively.

Drills support the accomplishment of tactical missions and integrate critical individual and leader tasks into collective tasks. They can be used either separately or linked together in a situational training exercise (STX). As a training tool, drills provide a high payoff for obtaining and sustaining proficiency in collective tasks at small unit level.

Drills also reinforce the following proven training concepts:

- Provide the small unit leader with core collective tasks (drills) that can be

used in scheduled training or as "hip pocket" opportunity training.

- Build from the simple to the complex.

- Facilitate continuous coaching, evaluation, feedback, and teambuilding.

- Train the soldier to function aggressively and correctly amid the noise and confusion of the battlefield when detailed orders and instructions may be absent.

### BUILDING BLOCKS

Individual (MOS and common) tasks form the basic building blocks for training infantry units. It is only after a unit has successfully trained its soldiers in these tasks to the prescribed standards that it can engage in good drill or collective training, which starts at the squad level.

Likewise, squad and platoon drills are the key building blocks that support platoon missions. Another building block includes supplemental tasks, such as planning and controlling operations. These two groups of collective and leader tasks can be linked through a logical, tactical scenario to form a number of STXs.

An STX normally consists of from three to five drills connected in a

logical sequence to form a block of tactical training. Although an STX is mission oriented, one STX generally will not result in mission accomplishment. Normally, multiple STXs must be linked through a field training exercise (FTX) in order to train a unit to total mission proficiency. The resulting overall training program therefore takes on the shape of a pyramid (Figure 1).

In this figure each of eight critical mechanized infantry platoon missions is represented by a triangle. These missions are supported by FTXs and the FTXs by STXs. The STXs are supported by drills and supplemental tasks, which are supported by individual tasks. Although the missions stand alone, most of them have in common many individual soldier and leader tasks. And because many drills also appear in more than one mission, a unit training for a particular mission will also be training in many of the drills and tasks required for other missions. Changes in the conditions of METT-T (mission, enemy, terrain, troops, time) will cause remarkable differences, however, in the mix of collective tasks required to execute a given mission. The exact combination of drills and supplemental tasks, therefore, will vary with the factors of METT-T, but the standards for exe-



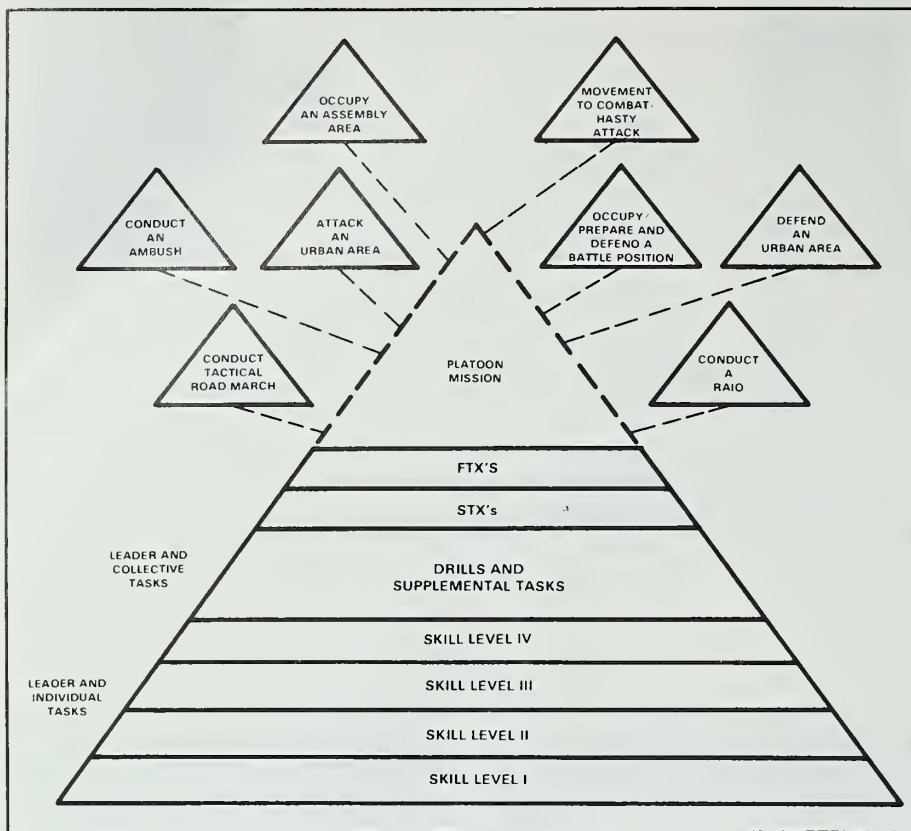


Figure 1. Overall Training Program.

cutting those drills or tasks will not change. Thus, drills provide for both flexibility in executing tactics and standardization in executing the tasks those tactics require.

## THE COMBAT DRILL

The overall mission of infantry units, of course, is to close with the enemy by means of fire and movement in order to destroy, capture, or repel his assault by fire, close combat, and counterattack. To accomplish this mission, infantry platoons spend a great deal of time aggressively moving on the battlefield seeking enemy contact.

To provide platoon and squad leaders with the tool they need to train their units to act rapidly, aggressively, and decisively to overcome enemy resistance (within their capability), the Infantry School has developed a critical kind of drill called the "combat drill."

The combat drill consists of a series of collective actions that are inte-

grated into sequential steps to reduce decisions to critical points and to cause the enemy to fight in two directions simultaneously.

It is vitally important to a unit's survivability and success in combat. The combat drill, therefore, must be perfected until a unit is confident in its ability to execute the drill automatically and aggressively upon enemy contact without stopping for long periods of time.

Versions of the combat drill have been developed for light infantry, infantry, and mechanized infantry platoons equipped with the Bradley fighting vehicle and with the M113. Squad versions have also been developed for all but BFV mechanized infantry units — Bradley infantry tactics are focused at platoon level. (Figure 2 illustrates the platoon combat drill for a mechanized infantry unit equipped with M113s.)

Seven sequential steps are normally followed in the conduct of drill training:

**Step 1.** First the leader identifies the critical drills on which his unit needs to

be trained. (Obviously, all the drills cannot be conducted at once.) The leader selects his drills from a menu of available drills based on training guidance, level of training proficiency, and the factors of METT-T.

**Step 2.** On the basis of his assessment of his unit's strengths and weaknesses, the leader next conducts all the prerequisite training on individual soldier and leader tasks. (The leaders must master the soldier skills themselves before they can train their soldiers to standard.) This is a critical step in the building block approach, because it establishes a sound foundation for the drill training.

**Step 3.** The leader must then establish conditions for each drill (in MOPP 4, at night, for example). The USAIS drill publications do not prescribe set conditions for the drills other than those that are implicit in the task itself. This allows the leader to be flexible in conducting training and to build in increasing complexity and challenges. It also guards against stereotyped thinking. Initial drill training, for example, might include very basic conditions until a firm baseline of proficiency is attained. Then more demanding conditions can be added to the drill. In short, a leader must use a crawl-walk-run method in building up to a drill conducted at full speed.

**Step 4.** In the crawl phase, a leader describes the standards and the roles of each individual who is to take part in the drill. He then identifies a triggering event, an initiating cue and/or a command which starts the drill and the key actions and standards within it. Finally, he conducts a demonstration and then has the soldiers and his subordinate leaders practice the drills by the numbers. Continuous correction is used as the leader coaches his soldiers through the drill.

**Step 5.** In the walk phase, the unit executes a drill at a slow pace, with the leader-trainer continuing to coach, critique, and correct individuals as they perform the drill. The unit then practices the drill until the soldiers can execute it to standard without being coached. This leads up to the run phase.

**Step 6.** During the run phase, a drill is run at full speed and without coaching, and conditions are changed to increase the difficulty and realism. Opposing forces and the Multiple Integrated Laser Engagement System (MILES) are incorporated at this point to help provide performance feedback. As with any training exercise, an after-action review (AAR) should be conducted.

**Step 7.** Once the individual drills have been mastered, a unit can integrate them into an STX, in which drills are linked together through a logical sequence. Although STXs are mission-oriented, they normally do not lead to total mission proficiency. Instead, they train only a portion of a mission or a “chunk” of the battle as shown in Figure 3. It therefore takes several STXs to train a unit on all the tasks required to accomplish a mission.

Once platoons and squads can execute drills to the prescribed standard, the unit’s soldiers will gain confidence in their own abilities and in the coordinated actions of the unit. This will allow the unit’s leaders to use fewer and shorter orders to control their soldiers during the confusion and intensity of combat. In short, drills will enable squads and platoons to train the way they would fight.

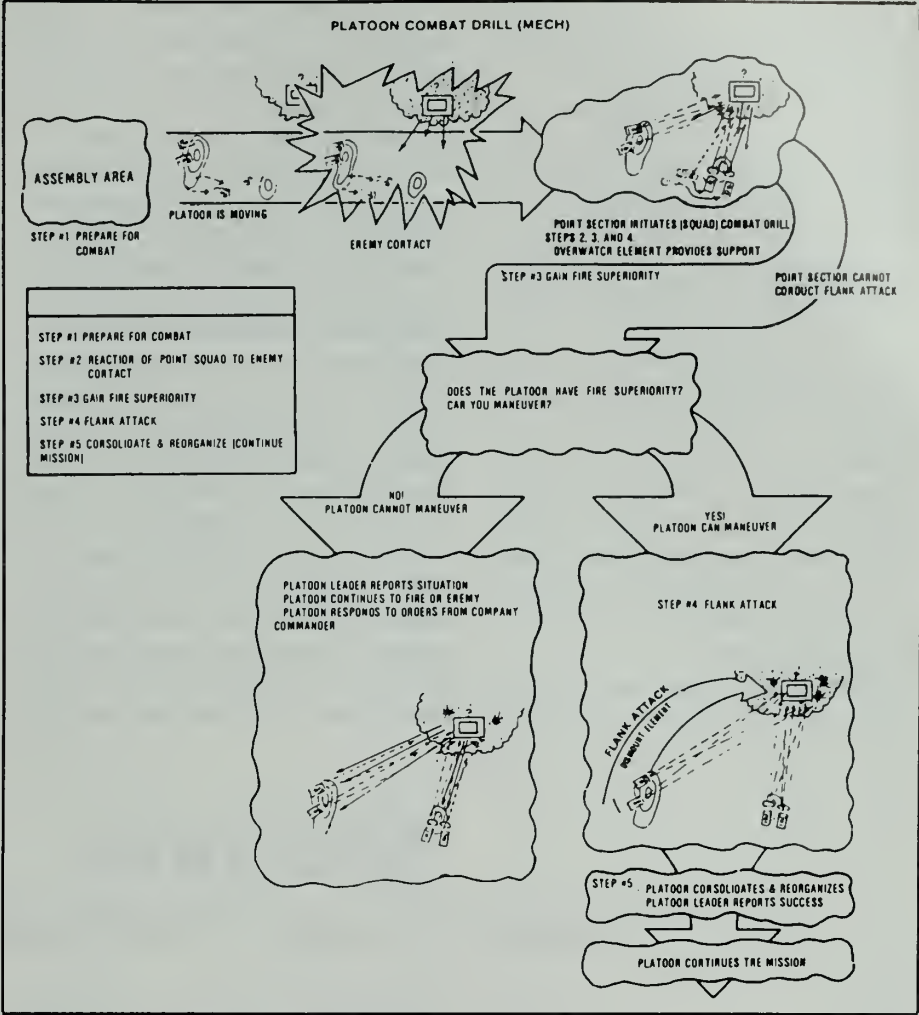
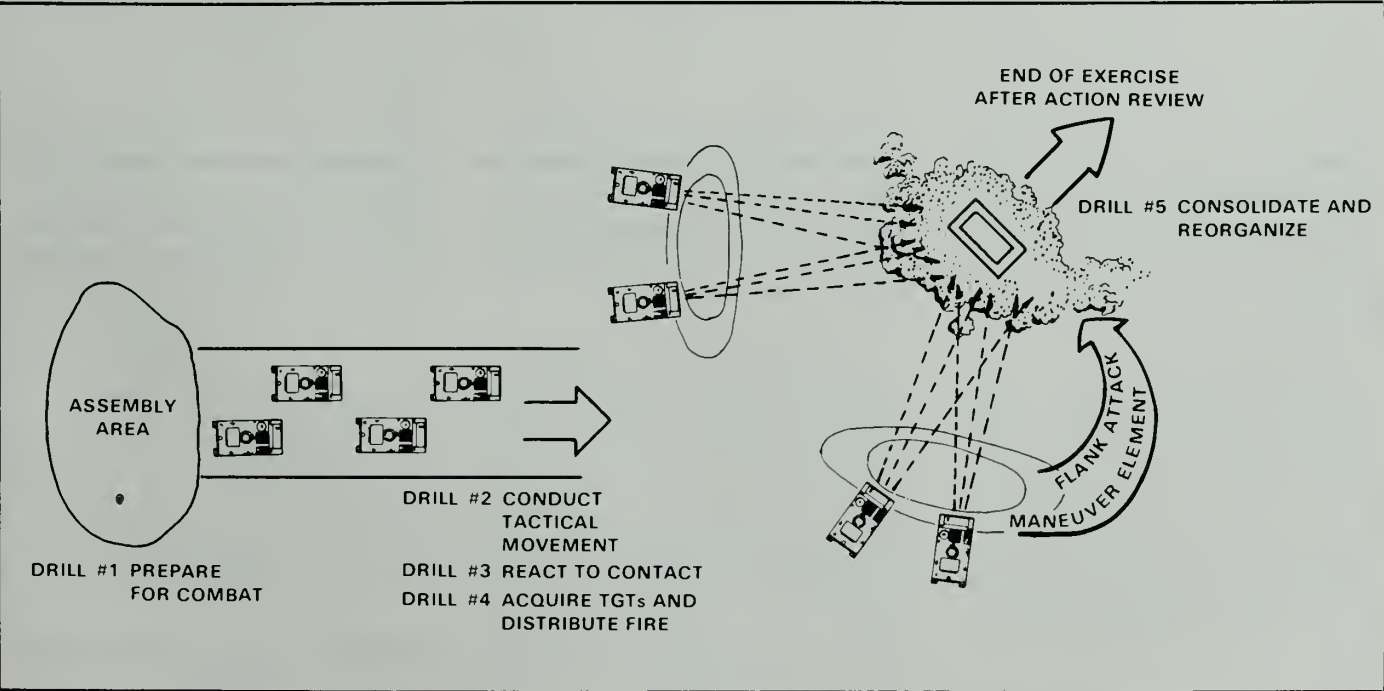


Figure 2. Mechanized Infantry Platoon Combat Drill.

Figure 3 (below). Sample Mechanized Infantry STX.





The preface to the School's drill field circulars compares drill training to football practice: Drills address individual tasks (blocking and tackling), leader tasks (skull sessions), and collective tasks (plays) before conducting ARTEP missions (scrimmages). Performing ARTEP mission training before drill training would be like scrimmaging on the first day of practice. Trying to react to METT-T conditions that require action without drills would be like formulating and calling out a play after the ball is snapped.

The final goal of training is to produce a ready unit that can respond rapidly and correctly to known or suspected enemy activity and defeat the enemy. Drill training is a key factor in achieving that goal.

The Infantry School has prepared and distributed four new field circu-

lars containing squad and platoon drills: FC 7-21 (M113), FC 7-21B (BFV), FC 7-22 (Infantry), and FC 7-15 (Light Infantry).

Instruction on drills is included in all the applicable resident courses taught at the School. In addition the School's New Equipment Training Team (NETT) presents drill instruction to CONUS-based units that are making the transition from the M113 to the Bradley fighting vehicle as part of the Doctrinal and Tactical Training (DTT) Program. (The 7th Army Training Command conducts the same training for USAREUR units converting to the Bradley.)

Users of the USAIS drill circulars are encouraged to submit any recommended changes or comments they may have. The School's objective is to standardize a core set of critical drills for all types of infantry as soon as

possible. Comments should be sent to the Commandant, USAIS, ATTN: ATSH-I-V-T-C, Fort Benning, GA 31905 (AUTOVON 835-4848/1317/4759).



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## Mortars: Able to Leap Tall Buildings

**CAPTAIN STEWART E. GOESCH**  
**CAPTAIN ROBERT A. LAMBERT**

In spite of the continuing spread of urban areas throughout the world, the U.S. Army has no current doctrinal techniques for placing indirect fires into built-up areas in such a way as to avoid or overcome the masking effects of buildings on those fires.

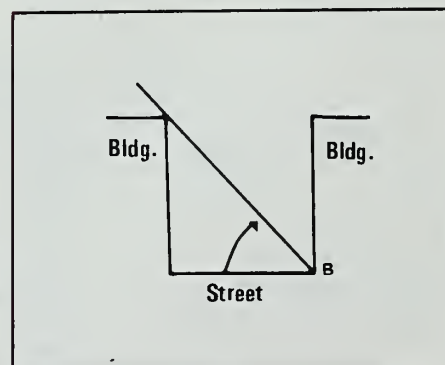
A mortarman doesn't have to work with mortars long, however, to observe that a mortar round's steep angle of fall is almost a mirror image of its steep angle of ascent. If he had a way of determining the angle of fall necessary to get a mortar round over buildings and onto a target in the street below, then he could compute the elevation necessary to produce that angle of fall.

Here is such a method, one that is as mathematically correct and reliable as the firing tables now in use. In fact, it is derived from those tables. Two main phases or procedures are involved in making the needed calculations.

To explain the first procedure, a new term must be introduced — "required angle of entry." The required angle of entry is the minimum angle at which an incoming mortar round must travel to avoid the masking effects of buildings along either side of a street and still fall on the street. This angle is described from the edge of a street to the top of a building on the opposite side of the street (Figure 1). In the

figure, Angle B is the required angle of entry for an incoming round.

Establishing a measure for this angle is remarkably simple, because the required angle of entry for any



**Figure 1**

CONVERSION TABLE FOR TANGENT VALUE TO ANGLE OF FIRE	
TANGENT VALUE	ANGLE OF ENTRY (in mils)
1.000	800
1.061	830
1.103	850
1.171	880
1.219	900
1.294	930
1.348	950
1.435	980
1.497	1000
1.596	1030
1.668	1050
1.786	1080
1.871	1100
2.011	1130
2.114	1150
2.286	1180
2.414	1200
2.631	1230
2.795	1250
3.078	1280
3.297	1300
3.684	1330
3.992	1350
4.558	1380
5.027	1400
5.936	1430
6.741	1450
8.449	1480
10.150	1500
14.530	1530
20.360	1550
50.920	1580
101.900	1590

Figure 2

street can be determined by dividing the height of the building in the target area by the width of the street. (These measurements can be provided to the fire direction center [FDC] through map data, reconnaissance, or a forward observer's estimate — along with the usual call-for-fire information.) The figure that results from this division is called the "tangent."

Using the conversion table in Figure 2, the FDC can then find the tangent

value (in the left column) and opposite it (in the right column) the corresponding mil measure of the required angle of entry. (Any tangent value of less than 1,000 can be fired without concern for the masking effects of buildings.)

As long as the angle of fall of an incoming round is equal to or greater than the required angle of entry, the round will land where it is supposed to — on the street — and not on a rooftop (Figure 3).

Once the required angle of entry is known, the FDC needs only to determine the necessary elevation and charge to produce the necessary range and angle of fall.

All of this data is in our current firing tables, but its arrangement makes it difficult to use for this type of calculation. In Figure 4 is a portion of a reconfigured 81mm firing table that is easier to use.

For example, given a fire mission with a range of 1,000 meters, a street width of 11 meters, and a building height of 55.3 meters, the FDC divides the street width into the building height to get a tangent value of 5.027. A glance at the conversion table (Figure 2) shows that the corresponding angle of entry is 1,400 mils. At a range of 1,000 meters, the first angle of fall greater than the 1,400 mils required for angle entry is under Charge 4, and the corresponding elevation is 1,393 mils.

This first procedure, though mathematically correct, deals with the theoretical, the ideal. But no two mortar rounds follow the same path, because each is subject to the effects of ran-

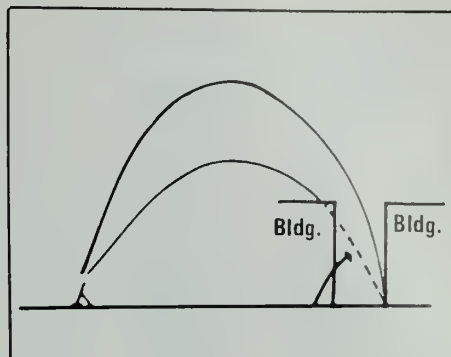


Figure 3

dom deviations in flight caused by a multitude of forces.

The second procedure, by using these random deviations, gives a commander or his FDC a practical way of judging how effective the unit's indirect fires are likely to be.

The random deviation, known as dispersion, is dealt with in the current firing tables under the term "probable error." For every range, the firing tables show a range probable error distance, which means that 25 percent of the rounds fired will land beyond the theoretical point of impact and 25 percent will land short of it, but within the range probable error distance shown. The rest, because of the random deviations in their flight paths, will land outside that area but in predictable percentages as they move away from the theoretical point of impact.

Why is this important?

Once the people in the FDC know the street width, they can compare it to the range probable error distance and compute with certainty the number of rounds that will reach the street. For instance, if the target street width is the same as the range probable error distance, then only 25 percent of the

MOUT FIRING TABLE												
RANGE	PROBABLE ERRORS		CHARGES									
	R	D	0	1	2	3	4	5	6	7	8	9
			ANGLE OF FALL ELEV	ANGLE OF FALL ELEV	ANGLE OF FALL ELEV	ANGLE OF FALL ELEV	ANGLE OF FALL ELEV	ANGLE OF FALL ELEV	ANGLE OF FALL ELEV	ANGLE OF FALL ELEV	ANGLE OF FALL ELEV	ANGLE OF FALL ELEV
75	7	1	1511 1508	*	*	*	*	*	*	*	*	*
250	8	1	1282 1271	1468 1478	*	*	*	*	*	*	*	*
500	9	1	*	1365 1346	1445 1429	1488 1473	1513 1499	*	*	*	*	*
750	10	2	*	1222 1191	1362 1336	1430 1406	1469 1447	1494 1473	1511 1491	1523 1504	*	*
1000	11	2	*	991 945	1269 1231	1368 1335	1423 1393	1457 1429	1481 1454	1497 1471	1509 1484	1518 1493
1250	12	3	*	*	1153 1101	1302 1258	1375 1336	1420 1384	1450 1415	1471 1438	1486 1454	1497 1466
1500	13	3	*	*	931 865	1225 1169	1324 1274	1381 1336	1418 1375	1444 1403	1462 1423	1476 1438

Figure 4



MOUT PROBABILITY TABLE	
Street Width in Relation to Range Probable Error Distance	Percentage of Rounds to Reach Target
2.0 X	50.00%
2.5	60.05
3.0	68.84
3.5	76.19
4.0	82.26
4.5	87.03
5.0	90.80
5.5	93.62
6.0	95.74
6.5	97.18
7.0	98.16
7.5	98.84
8.0	99.30
8.5	99.60
9.0	99.76
9.5	99.87
10.0	99.92
10.5	99.96
11.0	99.98
11.5	100.00

Figure 5

rounds will reach the street even though all have been fired correctly. But if the street width is twice the range probable error distance, 50 per-

cent of the rounds fired will reach their target (Figure 5).

Or, going back to the example used earlier with the MOUT firing table (Figure 4), the FDC knows that if Charge 4 is used with an elevation of 1,393 mils, the range probable error distance (R) is 11 meters. This means that the rounds will clear the buildings and 25 percent will fall within 11 meters of the intended range — that is, in the street. If all else is equal but the street width is 22 meters, then half of the rounds fired will reach the street. (For this fire mission, any charge of 4 or above will work, but with counter-battery radar, the lowest workable charge should be used.)

If they had this kind of information in hand, commanders and FDCs would know not only how to fire their mortar rounds but how many they would have to fire to produce a given effect, even in the narrowest of streets. In some situations, such information would tell them that they could not

bring effective fire on a certain street without a great and inefficient expenditure of rounds — or that they could not bring effective fire on it at all. Guesswork would be eliminated.

The Army needs to incorporate these two procedures into its doctrine and teach them for all kinds of mortars. No new research or technology would be needed. By simply restructuring what is already available, we could vastly improve the effectiveness of our indirect fire assets in urban terrain operations.

We can't afford not to do it.

Captain Stewart E. Goesch, now a U.S. Army Reservist, served on active duty in Berlin as a mortar platoon leader, a company XO, and an assistant battalion S-3. He holds a master's degree from Brigham Young University.

Captain Robert A. Lambert has also served as a mortar platoon leader and, while assigned to the Infantry School, helped write a field manual on the tactical employment of mortars. He is a graduate of the University of Alabama and is now a company commander in the 1st Infantry Training Brigade at Fort Benning.

## 81mm Mortar Training — with 60mm Ammunition

CAPTAIN RODNEY W. JOYE

Sustaining combat readiness in any unit is a continuous process that includes equipment, personnel, maintenance, and training. All of these unit readiness criteria are important, but if unit personnel are not trained to perform their assigned missions, all the other categories of readiness become meaningless.

Gunnery training, in particular, has become increasingly difficult because of the rising costs of training ammunition, and this includes mortar training. Today, the Army simply cannot afford to conduct all of its

mortar gunnery training with service ammunition. The cost of a current production 81mm high explosive (HE) round, for example, is \$122, and the cost of the improved 81mm HE round is estimated at \$225. In addition to the cost, the transition to the improved 81mm round has created a critical shortage in the ammunition available for training. Presently, almost all remaining stocks of the old ammunition are being held in war reserve, and the shortage for training purposes is expected to continue through Fiscal Year 1992.

If this situation is left unresolved, the Army is faced with two unacceptable choices: Either use war reserve stocks of 81mm ammunition for training or allow the combat effectiveness of its 81mm mortar sections to decline.

The logical solution to this dilemma, therefore, is to use training devices, scaled range ammunition, and subcaliber ammunition, along with service ammunition. The new POCAL scaled range ammunition, for example, can be used on local scaled ranges (up to 500 meters), sub-

caliber ammunition for practice gunnery or for ARTEPs, and full-caliber 81mm ammunition (when it is available) for ARTEPs. If necessary, 81mm mortar sections can conduct *all* their live fire missions effectively with subcaliber ammunition using the 60mm Insert Subcaliber Device (ISD).

This device was developed by personnel of the 50th Armored Division, New Jersey Army National Guard, for use in its mortar training. The ISD is identical to the M-31 subcaliber device used to fire 60mm ammunition in the 107mm mortar except that the adapter rings and the spacer sizes are smaller to fit snugly inside the M-29A1 mortar. During training, all crew actions are the same with this device as they are with 81mm ammunition.

The maximum range of 60mm ammunition is about 1,800 meters, which makes the ISD ideal for use in small impact areas. The 60mm ISD is the only way to provide training in the use of high explosive, white phosphorus, and illumination rounds, aside from using 81mm service ammunition.

Unlike 81mm ammunition, there is plenty of 60mm ammunition avail-

able. In fact, after deducting war reserve stocks from the total Army stocks, there is approximately a 10-year supply in the Army inventory available for training. And as improved 60mm ammunition is procured for war reserve stocks, additional quantities of the old 60mm ammunition can be released from war reserve for use in training. This means that, with proper management, there may be a 30-year stock for training.

Aside from the availability of 60mm ammunition, its use for 81mm mortar training would greatly reduce the cost of the ammunition used in 81mm mortar training programs. The existing stocks of 60mm ammunition were procured many years ago for \$12.57 per round, and the use of existing stocks would not require the expenditure of new funds for training ammunition as the other options would.

In short, the use of 60mm ammunition for 81mm gunnery would save the Army at least \$95 million over the next ten years. (With this saving, the Army could buy another 50 M-2 Bradley Fighting Vehicles.) Total Army requirements for the 60mm ISD could be procured for less than

\$1 million (based on a recommended basis of issue of four devices per infantry or mechanized infantry battalion).

Although the device, in concept, is not new, the need for it has recently become more critical, and it can be locally produced at minimal cost.

If the 60mm ISD were adopted, it would quickly provide a highly realistic solution to a long-term training problem.

Anyone who would like to have further information on this device and its use may write or call the Ammunition and Support Branch of the National Guard Bureau in Washington, D.C. — Major Schlimgen, AUTOVON 289-1720 — or the Office of Policy and Planning, New Jersey Army National Guard, Eggert Crossing Road, CN340, Trenton, NJ 08625-0340 — telephone (609) 984-3621.

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Captain Rodney W. Joye is a National Guard officer serving with the National Guard Bureau where he recently completed an assignment as a training devices staff officer. He previously served on active duty with the 3d Infantry Division, including a tour as a mortar platoon leader, and with the 24th Infantry Division.

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# Platoon Early Warning System

STAFF SERGEANT DONALD L. MOORE

“Protect the force” is one of the seven imperatives of modern combat, but sometimes there are not enough people to provide the necessary security. Although technology cannot replace a skilled rifleman in this role, it can help. One product of technology that can be of tremendous help to a

commander is the Platoon Early Warning System (PEWS).

PEWS is a lightweight, battery-powered, portable intrusion detection system designed for use by small units. PEWS detectors, when activated by personnel or vehicular intrusion (ground vibration or magnetic field),

transmit a coded message by radio or wire to a remotely located receiver. The operator receives both audible and visible alarms.

The major components of the system include:

- A receiver, which receives signals from the detectors and transmits an





audible warning through the headset or activates a warning light, or both.

- An antenna for operating in the radio mode.

- Lightweight detectors that detect ground vibrations or magnetic intrusions and send a message to the receiver by radio or wire.

- A wire link for use in the wire mode. (The link can accommodate wires from up to nine detectors.)

- A grounding rod, which is placed in the ground to protect the operator from electrical shock.

- A carrying case for storing and protecting the system.

The system has several features that are important to units: It can locate and classify personnel or vehicular intrusions within 10 meters of an emplaced detector; the detectors are easy to conceal; and the distance between a detector and the receiver can be as much as 1,500 meters for both radio and wire operations.

The system is compact and weather-proof. It has two bags that weigh about 11 pounds each for a total of 22 pounds. (The bags are 18 inches long, 6 inches wide, and 6.6 inches high.) It is reliable and can be remotely operated by radio or wire and three of the major components have built-in test circuits. The system operates on 9-volt batteries (BA90, or BA3090 for low temperatures), which last three days in a receiver and 14 days in a detector.

(The batteries weigh about two ounces each.)

The system is simple to place in operation, although there are certain important points an operator must remember after he has used the built-in test circuits to check the receiver and detectors to make certain they are operating properly.

The key to emplacing the detectors is knowing the composition of the soil in the area, because the detectors pick up ground vibration. Thus, the looser the soil pack, the better the detectors will work. Detectors should not be placed close to trees, because the roots of windblown trees may activate them. Metal objects nearby may also activate them.

An initial detection will always be represented by a tone sent through the operator's headphone, by a message displayed on the receiver's display, or by both. The display shows a P for personnel or a C for vehicles, plus a number to show which detector has been activated.

The displayed information will be repeated in rotation, starting with the lowest detector identification number and going to the highest. It will stay in the receiver's memory and will be displayed until the operator erases it by pressing a test reset button on the receiver.

A receiver can monitor up to 16 different detectors at once in either a

radio or a wire mode. Naturally, in the radio mode, the radio frequency information for both a receiver and a detector (shown on their data plates) must match or the receiver will not pick up the detector's signals.

There are a number of tactical situations in which PEWS can be used to good advantage:

- By a platoon in the defense to cover dead space, flanks, or boundaries forward of the defensive position, and along both mounted and dismounted avenues of approach into the platoon's sector.

- In ambush positions to give early warning of targets moving into the ambush site. (The security element could use PEWS to provide early warning of a superior force trying to outflank or envelop the ambush force.)

- By observation post and listening post personnel to extend their range of surveillance and provide early warning while they remain protected by the parent unit's covering fires.

- To replace or augment security patrols in the rear battle area and in a unit trains area where a limited number of personnel are available to provide security.

- During limited visibility operations to improve a unit's effectiveness by extending the range at which it can detect enemy forces beyond the ranges of its night vision devices.

- In depth in the covering force area or forward of a defensive position to enable the defender to monitor the progress of an advancing enemy force.

- On the flanks of an attacking unit to provide security.

- By patrols and units operating in the enemy's rear to help secure objective rallying points and patrol bases.

When combined with active security measures, when integrated into a unit's reconnaissance and security plan, and when covered by indirect fire, PEWS can be a valuable asset to any commander.

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Staff Sergeant Donald L. Moore is assigned to the Combined Arms and Tactics Department of the U.S. Army Infantry School. He previously served in the 2d Battalion, 17th Infantry at Fort Ord.

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# CIPC

CAPTAIN JOHN L. WOLF

One of the most essential but most often overlooked areas of training for combat arms soldiers is that pertaining to intelligence-related tasks. In combat we expect our soldiers to be able to process prisoners of war, identify friendly and enemy vehicles, and observe and report information, as well as many other similar tasks.

Fortunately, these are skills that can be practiced in a unit during both individual and collective training. Most of our soldiers can recite the five steps in processing prisoners and can explain the meaning of the SALUTE acronym. But many of them have little idea of how to apply these concepts in a realistic situation or of the importance of timely and accurate intelligence reports to higher headquarters. Too many units, during their FTXs and ARTEPs, either completely overlook these important tasks or give only cursory attention to them.

A course such as the combat intelligence proficiency course (CIPC) conducted in my battalion at Fort Lewis can be an excellent way for a commander to improve the intelligence proficiency of his unit. Using a squad reconnaissance patrol as its vehicle, this type of course combines several events and incorporates them into a tactical environment. In most cases, few training aids are needed, and support personnel can be kept to a minimum. The CIPC is flexible in that the assigned tasks can be changed each time a block of training has been completed. Also, various non-intelligence tasks, such as conducting a passage of lines, breaching a minefield, reacting to an enemy contact, and

countering an NBC hazard, can be added or substituted.

A sample course will illustrate how a CIPC can be conducted. In this sample, a patrol conducts a passage of lines, reconnoiters a suspected enemy position, reacts to an enemy contact, processes a prisoner, and re-enters friendly lines.

The first phase of this CIPC (as in any patrol) is the planning phase. In an assembly area, the squad leaders from one platoon are issued an operations order by the platoon leader. The order specifies the route both to and from the objective, and staggers the starting time for each squad by 30 to 45 minutes. It also contains debriefing instructions for each patrol.

A tactical situation is developed so that the squads are considered part of the reserve element of a larger unit that is occupying a defensive position. Each squad, therefore, is required to coordinate and conduct a passage of lines both going out and coming in. The platoon leader, or platoon sergeant who acts as the evaluator, serves as the point of contact for the passage of lines.

The second phase of the course, the execution phase, begins with the passage of lines. The evaluator guides the squad to the passage point; after the passage has been conducted, he follows the squad on its patrol. His function at this point is to observe the squad and to make it move along the designated route.

The reconnaissance of the objective is conducted in accordance with the unit's tactical SOPs; it includes making sketches of the objective and disseminating the acquired information

to all of the squad members. At some point along the return route, the squad is ambushed and has to try to break contact and continue toward the friendly lines. At another point, the squad encounters an enemy soldier and takes him prisoner. This requires the squad leader to search, segregate, silence and safeguard him, and speed him to the rear.

The debriefing is a CIPC's most important phase, for it is during the debriefing that the soldiers demonstrate their understanding of the SALUTE report. The evaluator can make the debriefing even more successful by asking questions that lead the members of the patrol to describe their observations in detail. The after-action review is conducted at the same time so that the evaluator can lead the squad through a self-critique. This enables the individual soldiers to point out their own shortcomings and identify areas in which they need improvement.

With a little planning and some imaginative thinking, a combat intelligence proficiency course such as this one can be tailored to fit the training needs of any unit. It is a valuable training tool that can be used to develop a critical yet generally overlooked set of soldier skills.



Captain John L. Wolf recently completed the Infantry Officer Advanced Course and is now assigned to the Infantry School's Ranger Department. Formerly, he was S3 of the 2d Battalion, 47th Infantry, at Fort Lewis. He is a 1980 graduate of the U.S. Military Academy.



# ENLISTED CAREER NOTES



## ARTICLE 15 PETITIONS

Time limits on the submission of Article 15 petitions will be dropped in the near future. A change to AR 27-10, scheduled for publication in September, will eliminate the three-year time limit in which to petition to have records of non-judicial punishment transferred from the performance to the restricted record on microfiche.

Under the current provisions of paragraph 3-43 of AR 27-10, 31 October 1985 is the deadline for petitioning Article 15s received before 1 November 1982 by those serving in the ranks of SSG and above on that date (including officers and warrant officers).

On the basis of the experiences of the DA Suitability and Evaluation Board (DASEB), which adjudicates Article 15 petitions, time limits serve no useful purpose and could act to the disadvantage of some soldiers.

This change does not nullify the DASEB's policy of returning petitions without actions unless at least a year has passed and one non-academic evaluation has been received since the Article 15 was imposed.

Petitioning the DASEB for transfer of the punishment is relatively easy. The soldier involved should address a letter in military format to the President, DA Suitability Evaluation Board, HQDA (DAPE-MPC-E), Washington, DC 20310-0300.

In the letter, he should state why he feels that the intent of the non-judicial punishment has been served and why the transfer would be in the Army's best interests. Most successful petitioners submit supporting evidence in the form of statements and other documents not already recorded in the OMPF. Enlisted petitioners should also send certified copies of DA Forms 2A and 2-1.

More information on petitioning for transfer of Article 15s is available from local MILPOs or Judge Advocate General offices.

## EER POLICY CHANGES

The requirement for soldiers to be rated three months after promotion to sergeant (AR 623-205, paragraph 2-6) has been eliminated. All other provisions of the regulation (Enlisted Evaluation Reporting System) remain in effect.

MILPERCEN officials also report that some units may not be aware that the Army-wide EER Weighted Average was eliminated on 1 January 1984. Although the last EER Weighted Average was published in December 1983, some units may still be using it or calculating a local average.

Any units that are still using either type of average should discontinue it immediately. These averages do not reflect the status of EERs throughout the Army or at unit level and may handicap soldiers in their career progression. The use of these averages in the past also contributed to inflated EER scores.

MILPERCEN has prepared an instructional package to educate soldiers and rating officials on the proper preparation of EERs. A copy can be obtained from the Commander, MILPERCEN, ATTN: DAPC-MSE, 200 Stovall Street, Alexandria, VA 22332-0400.

For more information on EERs, anyone who is interested may call MSG Hendrix, AUTOVON 221-9610.

## OVERSEAS EXTENSIONS

The Overseas Extension Incentives Program was established to encourage

soldiers to extend their overseas tours. The program improves retention and readiness by stabilizing soldiers and giving them a longer time in CONUS between overseas assignments.

Two categories of soldiers are eligible: Those with Space Imbalanced MOSs (SIMOSs) that have more than 55 percent of their authorized spaces overseas, and other MOSs with a turnaround time of less than 24 months in CONUS.

A soldier with one of the designated specialties who completes a normal foreign tour and extends that tour between 12 and 18 months may choose from the following incentives: \$50 per month incentive pay during the period of the extension; 30 days non-chargeable leave; or 15 days non-chargeable leave with space-required travel to and from CONUS for himself.

The program is self-financing — the cost of even the most expensive of these options is less than the cost of a permanent change of station.

MILPOs and commanders should encourage eligible soldiers to consider participating in the program.

More information is available from MILPERCEN, DAPC-PLP, AUTOVON 221-9770 or 221-8420.

## OMPF RECORDS

MILPERCEN's Enlisted Records and Evaluation Center (EREC) at Fort Benjamin Harrison keeps track of the official military personnel files (OMPFs) of 600,000 soldiers. In 1984 EREC received an average of about 240,000 documents a month.

More than 20 percent of those documents, however, could not be added to the OMPFs, because they were duplicates of documents already on file; they were not authorized for filing on the OMPF; or they did not

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**INFANTRY BRANCH**  
**(202) 325 or AUTOVON 221-8055**

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LTC George Basso  
Branch Chief  
(no photo available)



SGM James R. McClurg  
Chief  
Professional Development



Juliette E. Miley  
Chief  
Assignment Section



CPT Joseph A. Dubyel  
Deputy Branch Chief

---

**Professional Development**  
**(202) 325 or AUTOVON 221-0656/0569**

---



SFC John Henson  
Senior Infantry  
Career Advisor



SFC Joseph Calanni  
ANCOES Advisor



Liz Alexander  
USASMA  
Professional Development



Joanne Stinson  
ANCOES Manager



Michaelle Leshner  
Branch Secretary

---

**E7/E8 Assignments**  
**(202) 325 or AUTOVON 221-8056/8057**

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SFC Billy Paulk  
E8 11B  
Career Advisor



Rosie E. Garner  
Chief, E7/E8  
Assignment Team



Gregory Fox  
E6/7 11C/H  
Assignment Manager



SFC Steven T. Baker  
E7 11B/M  
Career Advisor



Tina M. Burroughs  
E7  
Assignment Manager

Ruth Ann Dotson  
E8, Assignment Manager  
(Photo not available)

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**E5/E6 11B/M Assignments**  
**(202) 325 or AUTOVON 221-8059/9399**

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Lenore F. Christenson  
Chief, E5/6  
Assignment Team



Gwendell Heath  
E5/6 CONUS  
Assignment Manager



Cynthia Wagner  
E5/6 CONUS  
Assignment Manager



Joann Filakousky  
E5/6 Overseas  
Assignment Manager



Shirley Price  
E5/6 Overseas  
Assignment Manager

SFC Larry J. Smith  
E5/6 11 B/M, Career Advisor  
(Photo not available)



## E1-E4 Assignments (202) 325 or AUTOVON 221-9517/9543



SFC David W. Draughn  
E1-4 11B/C/H/M  
E6/7 11C/H Career Advisor



Jackie Cohen  
Chief, E1-4  
Assignment Team



Beverly Eastman  
E1-4 11B/C/H/M CONUS  
Assignment Manager



Carver E. Poindexter  
E1-4 11B/M Overseas  
Assignment Manager



Debra Hendrix  
E1-5 11C/H Overseas/CONUS  
Assignment Manager

## Special Forces and Ranger Assignments and Applications (202) 325 or AUTOVON 221-9429/8340



MSG Horst Duchow  
SF  
Career Advisor



Theresia H. Palmer  
Chief, SF/Ranger  
Assignment Team



Cindy Holst  
SF  
Assignment Manager



Patricia Garcia  
SF  
Applications



MSG Laurence Williams  
Ranger  
Career Advisor



Frances Rawlings  
Ranger  
Assignment Manager

## NOTE: Drill Sergeant Assignments and Applications — (202) 325 or AUTOVON 221-8070/8394.

include enough information to identify the soldiers for whose files they were intended. (This lack of information usually means a soldier's Social Security number was not included, and without it the document cannot be matched to the correct soldier.)

Having a correct and complete OMPF is important for all soldiers but it is even more important for soldiers in the ranks of SSG and above. DA selection boards use the OMPF to select soldiers for promotion to SFC/PSG and above, for the Advanced NCO Course, the Sergeants Major Academy, and for Command Sergeant Major. Career branches at MILPERCEN also use the OMPF to make assignments.

Any enlisted soldier can get a copy of his microfiche OMPF at no cost by writing to Commander, U.S. Army Enlisted Records and Evaluation Center, ATTN: PCRE-RF-I, Fort Benjamin Harrison, IN 46249-5301. The request must include the soldier's name, Social Security Number, grade, mailing address, and written signature.

U.S. Army Infantry School during Fiscal Year 1986:

### OCS

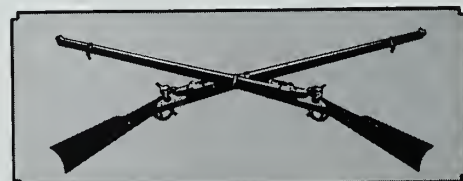
CLASS	REPORT	CLOSE
1	27 Oct 85	21 Feb 86
2	12 Jan 86	22 Apr 86
3	4 May 86	12 Aug 86
4	13 Jul 86	21 Oct 86
5	7 Sep 86	18 Dec 86

### OCS (RC)

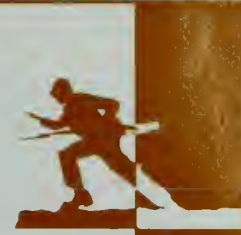
CLASS	REPORT	CLOSE
1	30 Mar 86	2 Jun 86

### OCS CLASS SCHEDULE (FY 86)

The following is the proposed schedule of Officer Candidate School (OCS) classes, both regular and Reserve Component, to be held at the



# OFFICERS CAREER NOTES



## OPMS REVISED

As a result of an extensive year-long review of the Army's Officer Personnel Management System (OPMS), several key changes will be made to the system over the next five years.

Several steps have already been taken to implement these changes.

First, branch proponents and major Army commands are reviewing Tables of Allowances (TDAs) and Tables of Organization and Equipment (TOEs) with regard to the revised officer classification system, and all the new documentation should take effect during Fiscal Year 1987.

Three "immaterial" position codes are being incorporated into the documents:

- "Branch immaterial" (01A) will be used to identify positions that can be filled by any officer (so long as he will not be performing the duties of an officer of a particular branch as outlined in AR 611-101).

- "Combat arms immaterial" (02A) will identify positions that can be filled by any combat arms officer (infantry, armor, field artillery, air defense, aviation, or engineer) but does not call for an officer of a particular branch.

- "Logistics immaterial" (03A) will identify positions that can be filled by any logistics officer (ordnance, quartermaster, transportation).

Also under consideration is a "personnel immaterial" code that would include the Adjutant General branch and the personnel management functional area (41).

When the new OPMS has been fully implemented, additional specialty designations into a second branch will no longer be permitted.

Officers of Year Group 1978 (YG 78) have begun the transition to a policy of one branch per officer (supplemented

by functional areas).

Only a limited number of these officers have had a second branch designated as an additional specialty. (Some branch-to-branch pairings were considered necessary to support current Army requirements.)

Some YG 78 officers in combat support and combat service support branches have received single track designations. This will permit repetitive basic branch assignments for them.

Most of the officers, however, were given the option of dual tracks that would include both branch and functional area assignments, or sequential tracks with repetitive functional area assignments.

Once this transition is complete, some officers from all branches may sequentially track in a functional area and concentrate their efforts there at various points in their careers.

Under the revised program, some officers will be transferred to combat arms and combat service support branches to meet Army requirements.

Other-Than-Regular-Army (OTRA) officers applying for Competitive Voluntary Indefinite (CVI) status under a centralized board process are being branch transferred at their third year of service to meet the requirements for captains. A few OTRA and RA officers will be branch transferred at their eighth year of service to meet requirements for field grade officers. This process will help manage losses more effectively and will maintain the proper inventory by grade and branch or functional area.

Command selection procedures have been modified and the changes implemented to emphasize the selection of lieutenant colonels and colonels:

- Each command board (combat arms, combat support, and combat

service support) is now using three panels.

- The Fiscal Year 1986 command selection boards that adjourned this past fall and winter assigned ten percent or less of command positions to promotable majors and lieutenant colonels.

- No promotable majors or lieutenant colonels are on either alternate command list.

- To reduce the practice of "frocking" commanders, promotable officers are being slated to assume command as late in the fiscal year as possible.

- Basic training battalions and brigades are being slated to receive infantry officers only, instead of officers of just any combat arm.

Many of the other approved recommendations will be implemented over a period of several years, and further information on them will be provided as it becomes available.

## DOPMA CHANGES

Several provisions of the Defense Officer Personnel Management Act (DOPMA) have been changed. These changes, which affect Reserve Component and active-duty commissioned officers and active-duty warrant officers, are the following:

- An officer who is discharged from a Regular appointment can now be given a Reserve appointment in the highest grade held, and he can be credited with the time-in-grade that he had in the former Regular grade.

- The three-stage board process for discharging a Regular officer for cause has been reduced to two boards. A recommendation that an officer must show cause for retention on duty will be sent directly to a board of inquiry without being considered first by an elimi-



nation selection board.

- An officer on the active duty list who has failed twice to be selected for promotion to captain is no longer eligible for further consideration by a selection board.

- Commissioned officers will be excluded from consideration for promotion if they have an approved separation date within 90 days of the date a promotion board convenes. This policy applies to officers who are eligible for promotion to the ranks of captain through colonel.

- Special selection boards may now be used to consider warrant officers for promotion when there were errors in their original consideration, or when they were eligible and should have been considered but were not. (This is similar to the current process for commissioned officers.)

- Reserve second lieutenants on the active duty list who are not qualified for promotion to first lieutenant will now be discharged from their appointments instead of being released from active duty. (This makes the process for Reserve officers the same as for Regular officers.)

- DOPMA allows the Army to deny separation pay if an officer is separated for cause. Before DOPMA this "severance" or "readjustment" pay could not be restricted.

- Eligibility for promotion has been restored for retired officers who were on active duty and were eligible for promotion before DOPMA was passed, and have remained on active duty.

## PREFERENCE STATEMENTS

We always seem to be reminding officers that we need their preference statements, but there continues to be a need for these reminders.

Many lieutenant colonels, in particular, may feel that, because of a variety of factors, a preference statement is not important for them. But nothing could be further from the truth. Of the officers selected for battalion command this year, less than half had preference statements on file. These statements are important to the

slating process, because the slate is made before the list is released, and it is too late to provide a preference statement after being notified of command selection.

All officers, lieutenant colonels included, should provide a preference statement annually, making sure their duty addresses and phone numbers are correct.

## INFANTRY SCHOOL SCHEDULES

Here are the proposed schedules of Infantry Officer Basic and Advanced Course classes for Fiscal Year 1986, including the Reserve Component classes.

Anyone who would like additional information about this schedule may call or write the Editor, INFANTRY Magazine, P.O. Box 2005, Fort Benning, GA 31905-0605; AUTOVON 835-2350.

IOBC		
NUMBER	REPORT	CLOSE
1	6 Oct 85	6 Mar 86
2	3 Nov 85	3 Apr 86
4	12 Jan 86	29 May 86
5	9 Feb 86	26 Jun 86
6	9 Mar 86	24 Jul 86
7	6 Apr 86	21 Aug 86
9	1 Jun 86	16 Oct 86
10	29 Jun 86	13 Nov 86
11	27 Jul 86	11 Dec 86
12	17 Aug 86	15 Jan 87
13	14 Sep 86	12 Feb 87

(Classes 3 and 8 have been cancelled.)

IOAC		
NUMBER	REPORT	CLOSE
1	6 Oct 85	17 Mar 86
2	26 Jan 86	18 Jun 86
3	6 Apr 86	27 Aug 86
4	8 Jun 86	29 Oct 86
5	14 Sep 86	23 Feb 87

IOBC (RC)		
NUMBER	REPORT	CLOSE
1	4 May 86	8 Jul 86

IOAC (RC)		
NUMBER	REPORT	CLOSE
1	23 Feb 86	19 May 86

## PMS ASSIGNMENTS

Each year Infantry Branch receives requirements to place about 25 lieutenant colonels in positions as Professors of Military Science in various university ROTC programs around the country. Whenever possible, we fill these positions with volunteers, but normally more than half of them are filled with other officers.

The PMS selection process works this way:

TRADOC, in conjunction with the four ROTC regions, determines which school gets an officer of which branch. The fact that an Infantry lieutenant colonel has been in the PMS position at a certain school does not guarantee that an Infantry lieutenant colonel will replace him. Trading schools between branches is not permitted.

Once the Officer Distribution Plan is determined, requisitions for the schools are passed to assignment officers in September of each year to be filled the following summer. To qualify, an officer must have a graduate degree, must not be in the primary zone of consideration for promotion to colonel, and must (normally) be available between June and September.

Two officers for each school are nominated to the appropriate ROTC Region Headquarters. The nomination packet on each officer consists of his ORB, a xerox copy of his current photograph, and xerox copies of his graduate and undergraduate transcripts. The two packets are evaluated at the Region Headquarters and one is sent forward to the school. Each school then has its own selection process, which normally takes from 45 to 90 days.

Infantry Branch is committed to send good officers to serve as Professors of Military Science, and the fact that three or four PMSs are selected for battalion command each year is evidence that Infantry officers remain fully competitive while in these assignments.

Any officer who is interested in a PMS assignment should contact Infantry Branch soon.

# BOOK REVIEWS



One of the most controversial military leaders of World War II was (and still is) British Field Marshal Bernard Law Montgomery, victor at El Alamein in late 1942 and commander of the combined Anglo-American armies that stormed ashore in Normandy in June 1944.

Unfortunately, Nigel Hamilton's second of a planned three-volume Montgomery biography — **MASTER OF THE BATTLEFIELD: MONTY'S WAR YEARS, 1942-1944** (McGraw-Hill, 1983. 863 Pages. \$25.95) — does not in any way make Montgomery a less controversial military leader; if anything, it does just the opposite. In fact, in his almost total distortion of the Allied military campaigns in northwest Africa, Sicily, Italy, and Normandy, Hamilton does Montgomery a tremendous disservice and makes Montgomery appear a far less capable high-level military commander than even his harshest critics claim.

Montgomery was never a team player, and he had little use for his American allies. (For that matter, he didn't care much for the Canadians and the Poles.) He could barely conceal his contempt for the Americans after the Kasserine Pass fiasco, and his almost complete lack of regard for the U.S. commanders dominated the later campaign in Sicily. His actions during the early days of the Italian invasion reeked of this same contempt. (It is probably only fair to say that most of the senior British commanders in Europe at this time felt the same way.)

The Normandy operation should have been regarded as the great Allied victory it was, but Montgomery's ego stood in the way and his insistence that "every thing had gone exactly as I had planned it" destroyed any sense of victory and led to serious divisions in the Allied ranks before the war ended in

May 1945.

Fortunately, there is a corrective to the Hamilton story about Montgomery's actions in planning for and executing the 1944 invasion of northwest France. In fact, no other author has presented a better description of Montgomery's role in that operation and the 76 days of heavy fighting that began on 6 June and ended at Falaise and Argentan on 17 August than Carlo d'Este in his book **DECISION IN NORMANDY** (Dutton, 1983. 555 Pages. \$22.50). The author served as an officer in the United States Army from 1958 to 1978, when he retired to research and write this book. He has done both exceedingly well, and his book should prove one of the definitive accounts of what actually transpired in Normandy — how the campaign went wrong and how it was eventually won.

Along the way, d'Este attacks the British official military history of the Normandy campaign, accusing the British historians of relying on incomplete documentary evidence and criticizing them for their "clear lack of objectivity and a failure to address a number of important questions."

Since 1945, a myth has grown up about Montgomery's role in Normandy and has been perpetuated and enlarged upon mainly by British writers, the latest being Nigel Hamilton. D'Este's book destroys that myth, and U.S. military men are urged to read it at their earliest opportunity.

Another book on the fighting in Normandy that the U.S. military professional should read is Max Hastings' **OVERLORD: D-DAY AND THE BATTLE FOR NORMANDY** (Simon and Schuster, 1984. 368 Pages. \$17.95).

Hastings is a British war correspondent and military historian with a long list of previously published works to

his credit, including one on the Falklands war. He takes a less rigorous approach than d'Este, but he did read d'Este's manuscript before writing his own book.

What concerns Hastings the most is the fact that few people today realize "just how intense were the early **OVERLORD** battles." He goes on to say, "In the demands that they made upon the foot soldier, they came closer than any other in the west in the Second World War to matching the horror of the eastern front or of Flanders 30 years earlier. Many British and American infantry units suffered over 100 percent casualties in the course of the summer, and most German units did so."

Hastings, therefore, concentrates on how the German, British, and American ground troops performed. He feels that the "German Army's achievement in Normandy was very great" and that the "Allies in Normandy faced the finest fighting army of the war, one of the greatest that the world has ever seen."

He also feels that it was "not that the Allied armies in Normandy were seriously incompetent, merely that the margin of German professional superiority was sufficient to cause them very great difficulties."

By the first week in August 1944, though, as Hastings points out, the "balance of psychological advantage had at last shifted decisively" and "the Americans had gained a new confidence in their own powers." He says, "Isolated infantry units held their ground; headquarters staffs kept their nerve; the American forces dispatched to meet the Germans [at Mortain] drove hard and sure to throw back the panzers."

The U.S. war in the Pacific between 1941 and 1945 has never received the attention the war in Europe has but



two recent publications go a long way toward balancing the difference.

One is Ronald H. Spector's *EAGLE AGAINST THE SUN: THE AMERICAN WAR WITH JAPAN* (The Free Press, Macmillan, 1985. 589 Pages. \$24.95), which is one of the volumes in the publisher's series titled "Wars of the United States."

Spector now teaches history at the University of Alabama, and holds a commission as a major in the U.S. Marine Corps Reserve. He previously served with the Army's Center of Military History, and was recently ordered to active duty to prepare a study of the Grenada operation.

Spector's is a complete, if sometimes opinionated, story of the war in the Pacific — ground, air and sea — and includes the happenings in the China-Burma-India theater. He also includes an account of the Army's only Black combat units to see action in the Pacific — elements of the 93d Division — and of the Black service units that served in the Marine Corps.

His chapter titled "Strangers in Strange Lands" graphically portrays how the American fighting man and his supporting elements reacted to the largely inhospitable environment.

Spector concludes his narrative by saying that "for the United States, the record of the Pacific War is not so much a story of how the services forgot their differences but rather of the ingenuity displayed by service leaders in devising courses of action which allowed them to get on with the war without having to settle those differences."

There are generalized notes at the end of each chapter and a rather complete bibliographic note just before a comprehensive index. An excellent reference work, this book should be remembered by the U.S. military professional.

The second Pacific War publication is Edward J. Drea's *DEFENDING THE DRINIUMOR: COVERING FORCE OPERATIONS IN NEW GUINEA, 1944* (Leavenworth Papers Number 9, Combat Studies Institute, Fort Leavenworth, 1984. 182 Pages. \$5.00, Softbound).

The main strength of this volume for the infantryman lies in its account of the small unit actions that were fought during General Douglas MacArthur's Aitape, New Guinea campaign in mid-1944.

The author, formerly with the Combat Studies Institute at Fort Leavenworth but now with the Military History Institute at Carlisle Barracks, was well qualified to write this study. A U.S. Air Force veteran, he lived and studied in Japan for six years. He has authored one other Leavenworth Paper.

In this volume, Drea concentrates on the performance of the 112th Cavalry Regiment and those elements of the 32d Infantry Division that fought units from the Japanese 18th Army along the Driniumor River for 45 days in a series of small but bitter engagements. He not only provides a day-by-day account of the battle, he also addresses tactical planning, logistics, and combat support.

Both sides experienced enormous difficulties in the hostile jungle terrain, and Drea points out that neither army had a sophisticated doctrine for jungle warfare. Accordingly, the combat units themselves had to improvise doctrine as the fighting went on.

Drea does not neglect the big picture, or the importance of Ultra information to the success of the overall operation. But the importance of his work is his tactical narrative and the lessons that this long-ago action on New Guinea can offer today's U.S. fighting man.

We would also call your attention to a good, solid, and generally dependable one-volume military history of the United States — *FOR THE COMMON DEFENSE*, by Allen R. Millett and Peter Maslowski (Free Press, Macmillan, 1984. 621 Pages. \$24.95).

The authors, both of whom teach history at the university level, present a straightforward historical narrative, concentrating their attention not only on the military services and their combat operations but on the political, economic, and social factors that helped shape this country's military policies. The focus on social factors is

particularly evident in the later chapters.

A selected bibliography can be found at the end of each chapter — a nice touch — while a general bibliography can be found at the end of the book.

Professor Maslowski wrote the first nine chapters while Professor Millett prepared the other eight and the epilogue. As a general history of American military policy, we do not hesitate to recommend it to the military professional for study and reference.

A new publication, in softbound form, has just come to our attention. It is titled *DEFENSE ANALYSIS* and is produced by Brassey's Defence Publishers. Its Volume 1, Number 1 is dated March 1985, and its North American editor is Roger Beaumont, a professor of history at Texas A&M University. Four issues a year will be published. The publisher intends this publication as a "new kind of forum," one that will "open up discussion and analysis in defense studies."

This first issue contains four articles, four professional notes, and a short section titled "Landmarks in Defense Literature."

All in all, this publication should attract considerable attention at the higher military levels in this country. It may not be the sort of thing junior infantrymen find helpful and informative, but they should at least look at it.

Finally, in our May-June 1985 issue, we mentioned the Osprey Publishing Company's several series of uniform books, one of which is titled *Men-at-Arms*. We also mentioned several of the more recent publications in that series. We have now received another one that U.S. infantrymen should find most interesting: *GRENADA, 1983*, with a text by Lee E. Russell and M. Albert Mendez, and color plates by Paul Hannon. (*Men-at-Arms* 159. 1985. 48 pages. \$7.95, Softbound.) In addition to the eight color plates, numerous black-and-white photographs complement the short but concise and seemingly complete narrative that covers the activities of all of the military services.

The authors conclude that "while operating under stringent rules of engagement, American personnel accomplished their missions with prudence and valour....The military skills of every participant were tested and found sound. Hopefully, the Grenada operation will serve a similar purpose to the Falklands war, as a symbol of military professionalism and a national resolve to keep faith with its citizens in peril."

Here are a number of our longer reviews of recently published books:

**THE END OF CHIVALRY: THE LAST GREAT CAVALRY BATTLES, 1914-1918**, by Alexis Wrangel (Hippocrene Books, 1982. 176 Pages. \$24.95). Reviewed by Lieutenant Colonel David A. Rolston, United States Army.

The author has collected a number of eyewitness accounts of World War I Russian cavalry battles and presents them in the story-telling style of oral history.

While the stories are interesting, the reader gets the feeling that old men's memories may have drifted far from fact during the 60-odd years between living the battles and telling of them.

The author makes no attempt to analyze the battles for significant lessons or historical significance. But this is still a worthwhile book for peo-

ple who enjoy the reminiscing of their elders and those who wish to get the flavor of Russian cavalry units of the past.

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**THE SOURCES OF MILITARY DOCTRINE: FRANCE, BRITAIN AND GERMANY BETWEEN THE WORLD WARS.** By Barry R. Posen (Cornell University Press, 1984. 282 Pages). Reviewed by Lieutenant Colonel John C. Spence III, United States Army Reserve.

Why did Germany's blitzkrieg offensive succeed so well in the spring of 1940, and why did Germany's air offensive against England fall just a few months later? The answers to these paradoxical questions can be found in Barry Posen's illuminating and well-researched study of comparative military doctrine.

Posen, an assistant professor of politics and international affairs at Princeton University, carefully examines the military doctrines of France, Britain, and Germany in the interwar period. His methodology focuses on the various doctrines in terms of the theory of balance of power and the theory of organization. Both of these theories, Posen points out, are useful in explaining the be-

havior of states during the past several centuries. For instance, the balance of power theory explains the behavior of states in an essentially "unregulated environment." On the other hand, organization theory can be used to explain organizational behavior when there are "functionally specialized bureaucracies."

Specifically, Posen points out that organization theory explains the French tendency after World War I to develop a primarily defensive doctrine. It can also explain the development by the British of the RAF Fighter Command and the air defense system.

Likewise, the balance of power theory explains much of the behavior of the three subject states during the interwar period. Thus, Germany, a pariah nation after the Treaty of Versailles, had no firm allies and had to rely on her own devices. Britain and France had to rely on each other in terms of a coalition.

Posen concludes that the balance of power theory is a "slightly more powerful tool" than organizational theory for the purposes of the study of doctrine. He deemphasizes technology and geography as elements of military doctrine.

This book is of great interest to the student of both military history and military strategy. Posen's analyses

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and insights are as germane to the present-day formulation of military doctrine as they were to French, British, and German leaders in the 1930s.

**THE GULF AND THE SEARCH FOR STRATEGIC STABILITY: SAUDI ARABIA, THE MILITARY BALANCE IN THE GULF, AND TRENDS IN THE ARAB-ISRAELI MILITARY BALANCE**, by Anthony H. Cordesman (Westview Press, 1984. 1,041 Pages. \$45.00). Reviewed by Major David N. Fetter, United States Army.

Anthony Cordesman's ambitious undertaking, as indicated by the title of his book, helps to fill the void in the current literature about an area that has grown in geostrategic importance since the 1970s, not only for the United States but for the West in general. There is nothing with which to compare Cordesman's book; it is a unique and valuable addition to the literature on the military and internal security situation in the Persian and Arabian Gulf region. The book carefully examines that situation in each of the states in the Gulf, with special emphasis on Saudi Arabia, Iran, and Iraq.

The book is filled with facts,

details, charts, and tables, and Cordesman's analyses, fully supported by statistical data, are clear and informed. As with any undertaking of this kind, some errors will occur and some of the data will become dated as arms shipments into the region continue at their current pace.

The beauty of the book is that, after a reader gets through the background material in the first three chapters, he is free to skip around to different issues of interest without becoming confused. If an AWACS sale interests him, for example, he can read chapters 8 and 9; if his interest is oil, then he can skip to chapter 14.

Taken as a whole, the book is well written, thoroughly documented, and relatively comprehensive. It stands by itself as a valuable addition to any library of contemporary issues in the Middle East, personal, professional, or academic.

## RECENT AND RECOMMENDED

**VOICES, 1870-1914.** Edited by Peter Vansittart. Franklin Watts, 1985. 352 Pages. \$16.95.

**TO HEAL A NATION.** By Jan C. Scruggs and Joel Swerdlow. Harper and Row, 1985. 414 Pages. \$25.95.

**CHARLIE MIKE (CONTINUE THE MISSION).** By Leonard B. Scott. A Novel. Ballantine Books, 1985. \$7.95, Softbound.

**SO THEY RODE AND FOUGHT.** By Major General S. Shahid Hamid. Hippocrene, 1984. 189 Pages. \$17.95.

**NAPOLEON AT WAR: SELECTED WRITINGS OF F. LORAIN PETRE.** By Albert A. Nofi. Hippocrene, 1984. 288 Pages. \$19.95.

**GENTLEMEN OF WAR.** By Dan van der Vat. Morrow, 1984. 205 Pages. \$12.95.

**WEAPONS OF THE FALKLANDS CONFLICT.** By Bryan Perrett. Sterling, 1984. 152 Pages. \$6.95, Softbound.

**THE STORY OF THE RASC AND RCT, 1845-1982.** Edited by Brigadier D.J. Sutton. David and Charles, 1984. 801 Pages. \$35.00.

**THE CIVIL WAR ALMANAC.** Edited by John S. Bowman. Facts on File, 1982. 400 Pages. \$19.95.

**BLACK AMERICANS IN DEFENSE OF OUR NATION.** S/N 008-000-00413-7. U.S. Government Printing Office, 1985. 192 Pages. \$5.50, Softbound.

**COMMAND DECISIONS.** S/N 008-029-00071-7. U.S. Government Printing Office, 1984. 576 Pages. \$18.00, Softbound.

**SEVEN FIREFIGHTS IN VIETNAM.** By J.A. Cash, et.al. S/N 008-029-00072-5. U.S. Government Printing Office, 1985 Reprint of the 1970 Edition. 168 pages. \$4.25, Softbound.

**ESSAYS ON STRATEGY.** S/N 008-020-01002-2. U.S. Government Printing Office, 1984. 132 Pages. \$4.00, Softbound.

**DEFENSE PLANNING FOR THE 1990s.** S/N 008-020-01007-3. U.S. Government Printing Office, 1984. 328 Pages. \$8.50, Softbound.

**THE SOVIET ARMED FORCES: A HISTORY OF THEIR ORGANIZATION DEVELOPMENT.** S/N 008-070-00524-7. U.S. Government Printing Office, 1984 Reprint of the 1978 Edition. 580 Pages. \$14.00, Softbound.

**BEAM WEAPONS: THE NEXT ARMS RACE.** By Jeff Hecht. Plenum Press, 1984. 363 Pages. \$17.95.

**FUTURE WAR: ARMED CONFLICT IN THE NEXT DECADE.** Edited by Frank Barnaby. Facts on File, 1984. 192 Pages. \$16.95.

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# **From The Editor**

## **MAILING LIST SURVEY**

We appreciate your responses to our recent mailing list survey, and are in the process of making the necessary changes.

Your responses, however, brought out some points that need to be clarified:

- Some of you said you seldom or never received copies of the magazine. But our survey cards were sent to the same addresses we use for our magazines. So if you received a survey card but are not receiving copies of the magazine, then we ask that you check your distribution channels to see why you are not getting them. (For units, copies are always addressed to the commander.)

- Some of you said you were getting either fewer or many more copies than we are actually sending. You should be receiving (in any one envelope) the exact number of copies shown on the label. Here, again, please check your distribution channels.

- Some of you indicated on the survey cards that we should direct a "Commander" copy to some subordinate element — such as a G-3, for example, instead of a division commander. But sometimes we hear from division and brigade commanders (or heads of other agencies or schools) who want to know why they never see the magazine. We believe, therefore, that this is a routing problem. (We realize that there is a lot of mail addressed to "Commander" that he does not want to see, but we like to think that INFANTRY magazine is not one of them.) So we keep the commander on the list, on the off chance that he'll really get it, and (sometimes) add the subordinate element as well.

- In some cases, whoever received the card returned it indicating that some change in the organization had taken place. In fact, it might now be a completely different kind of unit. (Usually, these were Reserve Component units.) In those cases, we simply delete the original unit and add the new one indicated — but only if the new unit qualifies under our distribution guidelines.

We work hard to keep our mailing list up to date. You can help us by letting us know when there is some change to your organization or your mailing address. And if at any time you have any questions about our distribution system, please let us know.

## **HOT LINE**

The Infantry School maintains a hot line for military callers for around-the-clock contact with the field. If you have a general question, or a question dealing specifically with the Army Training and Evaluation Program (ARTEP), or if you have something of an immediate nature to pass on, the number to call is AUTOVON 835-7693, commercial (404) 545-7693.

If you have a lengthy question or comment, please send it in writing to Commandant, USAIS, ATTN: ATSH-SE, Fort Benning, GA 31905-5452.

### **BACK COVER:**

Soldiers of Company B, 1st Battalion, 4th Infantry exit Bradley while it is in motion.





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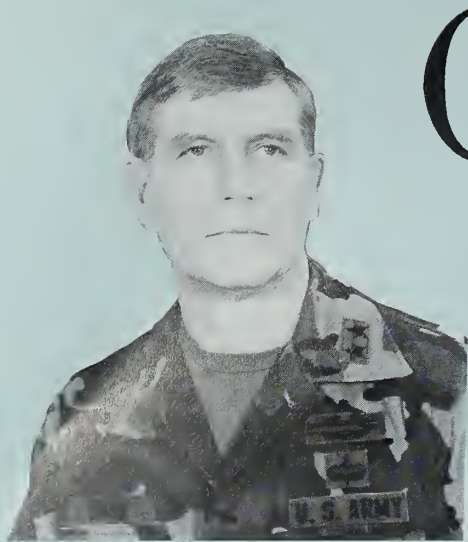
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# Commandant's NOTE



**Major General John W. Foss**

Chief of Infantry

## HEAVY-LIGHT MIX

In my Note in the March-April 1985 issue of *INFANTRY*, I expressed my concern that our Infantry community could become a divided one if Infantrymen everywhere did not accept the idea that while there might be several *infantries*, there is only one *Infantry*.

What I feared then seems to have come to pass with heavy (mechanized) infantry and light infantry advocates going at each other rather strongly. In particular, the mechanized infantrymen feel they are somehow being short-changed in manpower and resources, that the Army's hierarchy is concentrating most of its attention on the new light infantry units while ignoring their genuine needs, and that the TRADOC service schools — specifically the Infantry School, which is being accused of "going all light" — are ignoring the mechanized infantry's need for training and doctrinal publications while churning out all kinds of light infantry material.

Let me assure all Infantrymen now — we at the Infantry School are not partial to any one of our *infantries*, but we are very partial to the *Infantry*. I feel that the balancing of forces now going on is good for the Infantry because for the first time in a decade we are adding infantry battalions to the Army's structure and are increasing our infantry foxhole strength.

Let's face it: Under the Division 86 structure the initial TOEs were not fully resourced simply

because the Army never had the resources to do so. In order to get it down to manageable levels, the strength of the infantry battalion was reduced from 896 to 844 soldiers. Some of these losses were suffered by our rifle squads as they went from 10 to 9 men each. Many of our mechanized infantry battalion commanders have been concerned with this loss of foxhole strength, because they know they have only 324 fighting soldiers in their 36 Bradley-equipped squads.

With our new light units, therefore, we are getting more dismounted fighting infantrymen on the ground, where they belong, either to fight independently or to act in concert with our mechanized infantry units. Many of our light infantry divisions will integrate with our heavy divisions in a NATO war. (On the latter subject, see the three articles in the July-August 1984 issue of *INFANTRY*.)

The Army is not bringing light infantry in at the expense of its heavy units. These infantrymen are coming from the reorganizations of our present regular infantry divisions — such as the 7th and the 25th — and from our TDA overhead. And while we will not see an increase in the number of infantrymen in the mechanized battalions, neither will we see another decrease in that number. What we must do now is train to integrate our mechanized and light infantry units

when the scenario calls for it so that they can present a strong, united front against any enemy. (I would also recommend as reading on this subject General William Depuy's article, "The Light Infantry: An Indispensable Element of a Balanced Force," which appeared in the June 1985 issue of *Army* magazine.)

Are we concentrating too much of our attention on our light infantry units? I'm not, and I know the Infantry School is not.

It is true that at Benning we are putting out several manuals on light infantry tactics and training; are running the Light Leaders Course and the expanded Ranger Course; and have an add-on light infantry operations module for IOAC.

But at the same time, we have made a monumental effort in formulating manuals for Bradley units — The Tank and Mechanized Infantry Task Force (FM 71-2J), The Mechanized Infantry Platoon/Squad (BFV) (FM7-7J), and Bradley Drills (FC 7-21B); we are putting out a new improved ARTEP for Bradley platoons; and we are looking at various Bradley training devices. In fact, mechanized infantry operations serve as a basis for most of our tactical instruction.

We have also added periods of instruction on the Bradley fighting vehicle to our basic and advanced officer courses; we offer a Bradley commanders course; we have an officer maintenance course; and we have an additional course as an add-on module for advanced course students assigned to mechanized units.

We realize that training the Bradley force is tough because there are new demands on leaders and that the hard, detailed gunnery and turret maintenance skills require a precision most infantrymen are not yet used to. We are working on how best to do all of these things. In addition

to our NET team, for instance, we have ARI, TRASANA (in Europe), and Litton working with us on these problems. I think we know how to transition a unit. How to structure a sustainment training program for Bradley units is not that easy. I think the tactics are settling down, but they are not yet deeply ingrained. We will share everything we find and ask that you do the same.

Let me again emphasize this point: Our infantrymen, no matter what label precedes their names, are infantrymen first, and their basic mission has not changed in 210 years. To be ready when called on to do battle, they should be trained and experienced in several specialties — mechanized, airborne, air assault, motorized, and the like. We cannot afford to have infantry officers and noncommissioned officers hold views so narrow and so specialized that they cannot serve effectively in different types of infantry units around the world; yet we must recognize that each does have specific training standards for today's job.

I regret that some infantrymen today are concerned about the increased hype given the new light infantry units. I certainly do not view our mechanized infantry and light infantry units as being in competition. We must be realistic about getting more infantry onto the battlefield, and we must all pull together to get more infantry. Every war we've ever had has proved time and time again that we did not have enough infantry of *any* type.

Admittedly, we are in a period of transition. But with all of us pulling together and sharing our thoughts, we can make our Infantry the finest fighting force the world has ever seen — balanced, determined, skilled, and thoroughly professional.





# INFANTRY LETTERS



## **SAFETY vs REALISM**

I applaud Captain Kratman's article "Concerning 'Safety'" (May-June 1985, page 10). Having served as a company commander and a battalion S-3 with the 193d Infantry Brigade in Panama, I can unequivocally state that training realism and live fire exercises from individual to company level were everyday tasks there.

In units outside that brigade, however, I have found leaders habitually concentrating their efforts on observing the safety of their men and not on the developing tactical scenario. They were reluctant to employ fire and maneuver. The soldiers, too, consistently showed hesitation and a reluctance to employ fire and movement techniques.

In contract, the soldiers of the 193d Brigade had absolute trust and confidence in the ability and judgment of their comrades and devoted their attention to the mission at hand.

Boundaries, phase lines, routes of advance, probable lines of deployment, and objectives are the safety measures leaders employ. Anything beyond good military command and control measures detracts from training realism.

Our units must constantly train in realistic conditions employing all organic and attached weapon systems in a free-flowing tactical environment, and unit leaders must become more involved in their tactical roles.

Let's start practicing the way we're going to play!

W. SCOTT KNOEBEL  
CPT, Infantry  
MILPERCEN  
Alexandria, Virginia

## **ANOTHER VIEW**

In Captain Kratman's article in your

May-June 1985 issue, he laments the so-called overstringent safety requirements in live fire exercises. I would agree that "unreasonable preoccupation with reducing or eliminating injuries and deaths, to the exclusion of all other considerations" would significantly detract from realistic training. But I do not feel that the restrictions mentioned in the article are unreasonable.

Many of these problems can be eliminated, with little loss of realism, by a more extensive use of MILES equipment. Live munitions do not leave much room for mistakes when used in training; MILES does. People do make mistakes, even well-trained soldiers. And mistakes are supposed to happen in training so they can be corrected before they cause casualties and mission failure during wartime. There is, however, no excuse for a preventable accident that causes the injury or death of a soldier, especially during peacetime. The use of live munitions requires that safety be more heavily weighed against realism in training, and that restrictions be put on the type of training in which they are used.

Conversely, timidity in attacking the problems of realistic training is not satisfactory. For instance, the lack of any sort of target other than "somewhere in the live grenade range impact area," doesn't present realistic training for our soldiers. Targets need to be set up, and a system of scoring needs to be devised for live-grenade ranges.

Challenging demolition training can be used in conjunction with range and post improvement projects in many cases. This type of training gives soldiers more opportunities to think (in deciding the type of charge needed and its placement), and it also gives them more of a sense of purpose in their training. The training is no

longer just "priming the same meaningless lump of C-4," dumping it into a demolition pit and watching it go "boom." In the long run, it might save the Army some money as well.

Safety is most desirable in all training situations. Accidents are not just "the cost of doing business." The active and aggressive involvement of a unit's leadership can and must ensure that realistic training is conducted without detracting from safety. Realistic training that causes real casualties is not good training!

MARK A. DORNEY  
1LT, Field Artillery  
Fort Sill, Oklahoma

## **TRAINING LIEUTENANTS**

Reference "Training New Lieutenants," by Captain Samuel K. Rock, Jr., in your November-December 1984 issue (page 35), I was amazed that NCOs were not mentioned more as trainers of lieutenants.

AR 600-20 describes the platoon sergeant as playing a key role in the chain of command as an assistant and advisor to the platoon leader and as one who assumes temporary command in his absence.

With 13 years of experience in the infantry, I think this is logical on the basis of the training the platoon sergeant has received. In most circumstances, the platoon sergeant already has a thorough knowledge of how a platoon should be run and has worked with other platoon leaders before the new one arrives. Who, then, seems most qualified to train the new lieutenant?

The company commander should train the new lieutenant, of course, on his role in the officer corps and on where he fits into the company scheme

of maneuver. But the platoon sergeant should advise the platoon leader on the operation of the platoon.

Even though the article says that many new lieutenants in Europe say they are not even sure what their job is or how they fit into their units, I have observed over the years that most new lieutenants do want to accept complete responsibility for their platoons.

It is my conviction that a platoon leader and platoon sergeant should form a combined "fighting team" to cover all aspects of training the platoon. Once both know their duties and perform them together, their platoon will become combat ready.

ROY A. FABIAN, JR.  
SFC  
2d Armored Division (Forward)

## UNEXPLOITED ASSET

Many people subscribe to the philosophy that all soldiers are basically infantrymen but with different specialties. In my opinion mortars are an extension of field artillery, and artillery techniques are directly applicable to the mortar's mode of operation.

From my observations, though, most infantry units lack the necessary organic expertise to effectively train or employ their mortars within broad artillery concepts. In many cases the mortar platoon leaders lack the up-to-date training, guidance, and experience to complete their missions. A platoon leader is usually in the early phases of his career and is busy developing his confidence and technical expertise.

An infantry battalion has no one skilled in up-to-date artillery techniques who provides guidance for the mortar platoon leaders. The battalion fire support officer (FSO) can be the solution to this problem.

The battalion FSO can be used to provide training and guidance in the reconnaissance, selection, and occupation of positions; fire direction center operations (in both consolidated and split modes); hip shoots; and displace-

ment by echelon. He can also provide guidance to the battalion commander, the company commanders, and the platoon leaders on how to conduct their training to bring their units to the highest level of readiness.

The FSO can be a tremendous asset to an infantry battalion in this regard but, like any other asset, only if he is fully used.

ALBERT J. TONRY II  
CPT, Field Artillery  
FSO, 1st Battalion, 101st Infantry  
Massachusetts Army National Guard

## WHY NOT?

When I was a rifle platoon leader, one of the problems I often encountered was in signaling my squad leaders, support elements, or security personnel. The star clusters and parachute flares used with the M16A1 are large and cumbersome, and the squad radios (PRC-68s) are unreliable at times.

It seems to me that if a rifle platoon leader trained with and carried an M203 grenade launcher, he could carry a variety of star clusters and other signaling devices in less space with less weight. The platoon leader would not necessarily have to carry the full basic load of 36 rounds, just a few rounds for signaling. The M203 does weigh more than the M16 but not much, and its additional versatility would make up for that extra weight.

The platoon leader could mark targets indirectly with a smoke or HE round instead of with a stream of tracers. He could initiate a raid or an ambush with an HE round and keep his organic M203s with the support element.

He could also provide his own illumination instead of violating noise and light discipline by calling to his M203 gunner, who is primarily respon-

sible for the deadspace in front of the M60 machinegun, while in the defense.

The M203 gives the platoon leader a variety of options that are not available with the M16A1 and the standard signaling devices issued to him.

When I suggested this idea to my commander, though, he laughed and said it was not a good idea. But he failed to convince me that it was not practical. Maybe some INFANTRY readers can explain to me why this is not a good idea — or maybe why it is. I would appreciate any comments on the subject.

GARY W. ACE  
1LT, Infantry  
CSC, 1st Battalion, 5th Infantry  
Schofield Barracks, Hawaii 96857

## CHALLENGING CTT

All too often the Common Task Test (CTT) is administered only out of necessity and is boring to the soldiers. But the CTT can be made more challenging than this.

After last year's CTT, my company — Headquarters Company, 2d Battalion, 124th Infantry (Florida National Guard) — decided that something better had to be done. That test was conducted in the company area in round robin fashion. The lines were long, and the soldiers selected as evaluators were not well prepared for what they were to do. That's when it was decided that the 1985 CTT would be conducted the way it should be — in the field, in a tactical situation, and in a more challenging way.

First, the unit NCOs were asked to suggest ways to improve the CTT — to make it more interesting to the soldiers taking it. We decided that a two-mile course through the forest along an unimproved road or trail would be best, with test stations placed at various locations along the route. Soldiers would start the course in two-man teams at ten-minute intervals. The length of the course would make waiting time at the stations minimal.

We welcome letters from our readers and print as many of them as we can. Sometimes it takes a while before we find room for them. But keep writing on topics of interest to our readers, and we'll do our best to get your letters in, sooner or later.



The NCOs selected to be evaluators were notified well in advance and encouraged to become experts on the tasks assigned to them. As a result, they demonstrated creative ability and resourcefulness. (Each evaluator was assigned two tasks, which reduced the number of evaluators needed to conduct the test.)

Some innovative ideas were used. The soldiers were instructed, for example, to camouflage before starting the course. This put them into a tactical frame of mind and reduced the amount of time needed at the first station, at which they were to camouflage themselves and their equipment.

At another station, the soldiers were to collect and report information using the SALUTE format. The station was on a small hilltop overlooking another station where other soldiers were performing operator maintenance on their weapons. These soldiers used binoculars to gather intelligence for their SALUTE report.

At the challenge and password station, soldiers entered friendly lines after negotiating a barbed wire and concertina obstacle. At each station soldiers were read tactical scenarios before receiving the task, condition, and standard of the task being tested.

Additional tasks were included to make the test more of an adventure. For example, because headquarters troops seldom have an opportunity to see or use the weapons and equipment regular infantry units use, stations were provided to expose them to a few: An M47 Dragon LET was set up and the soldiers engaged targets with it. At another station, a fire and maneuver course was set up and, using blank ammunition and hand grenades, the troops engaged simulated enemy positions and silhouettes.

Evaluators were told from the start to use their imaginations and make the stations as realistic as possible. But safety was a priority from the start. Caution statements were issued

when necessary, and ear plugs were provided for use around weapons. And because heat was a factor, water points were placed throughout the course.

The overall results of this year's test were positive. Because the unit NCOs were made a part of the planning process and given a free hand in preparing the stations, they showed considerable initiative in planning and executing the tasks assigned to them. And they learned to appreciate the value of planning ahead. The commander also now has a better understanding of where we stand on common tasks. More important, our soldiers were motivated to train hard and excel at the tasks assigned to them. Many of them, in fact, can't wait to do it again next year.

MICHAEL L. COLLIS  
SFC, Training NCO  
Orlando, Florida

#### VIETNAM VETERANS

As some INFANTRY readers may know, my first book, *Battle for Hue: Tet 1968* (Presidio Press, 1983), was based on interviews with 35 Vietnam veterans. A second book, to be published soon, is based on interviews with 90 Vietnam veterans who served in the 1971 invasion of Laos.

Now, I'm starting a third proposed book. In it I hope to chronicle the activities of the 1st Marine Division and the Americal Division in the area of Arizona Valley, the Que Son Mountains, and Hiep Duc Valley from 7 June to 7 September 1969. During this period the Marines were involved in several rough battles in the Arizona Valley, then shifted south into the Que Sons to assist the Army, which was fighting a bloody bunker-to-bunker action in the Hiep Duc Valley.

The Army units involved were the 2d Battalion, 1st Infantry; 3d Bat-

talion, 21st Infantry; 4th Battalion, 31st Infantry; 1st Battalion, 46th Infantry; 196th Light Infantry Brigade, Americal Division. Added to these were the 1st and 2d Battalions, 5th Marines, and the 1st and 2d Battalions, 7th Marines; the 1st Reconnaissance Battalion; the 1st Tank Battalion; the 1st Marine Air Wing; and various smaller units.

I would greatly appreciate hearing from any veteran of these operations as soon as possible so that we can arrange an interview, no matter how small his personal role may have been. Call or write me any time at 20 Kingsville Court, Webster Groves, Missouri 63119; (314) 961-7577.

KEITH WILLIAM NOLAN

#### PRE-D-DAY UNITS IN WALES

One week before D-Day, 6 June 1944, American servicemen were billeted in private homes in Ferndale in South Wales. I don't know which unit or units they were from or which division they belonged to. But they were made more than welcome here. In fact, my parents-in-law had one trooper billeted with them at No. 9 Elm Street, but we never heard about him or any of the others.

We knew about the terrible losses on Omaha Beach and have always felt that these Americans were there. Any information I could get on them would be greatly appreciated.

My brother was in the Bayeux, Le Havre, Turnhout liberation but, sadly, was killed in action near Nispen in southwest Holland. So you can understand my interest.

L. ANSTEE  
1 Pleasant Hill  
Ferndale Rhondda  
Mid-Glam  
South Wales CF 43 4SE

# INFANTRY NEWS



IN THE ARTICLE titled "Echo Company: The Fifth Player" by Captain Michael S. Hackney, which appeared in our July-August 1985 issue (pages 20-24), we said that Captain Hackney had commanded an anti-armor company in the 25th Infantry Division.

As a reader can tell by the biographical data at the end of the article, Captain Hackney is assigned to the 24th Infantry Division.

We apologize to Captain Hackney and to the 24th Infantry Division for placing him in another unit.

THE EXPERT INFANTRYMAN BADGE Test manual, DA Circular 350-85-3, because of publication problems, will not become effective until 1 January 1986. (See INFANTRY, March-April 1985, pages 15-17.)

The current test using AR 672-12 (1 May 1983 with Change 1), Decorations, Awards, and Honors, Expert Infantryman Badge, and DA Circular 672-83-12 (1 July 1983), Decorations, Awards, and Honors, Expert Infantryman Badge Test, has been extended to 31 December 1985.

A HOT LINE FOR THE ARTEP mission training plan (AMTP) has been established in the Directorate of Training and Doctrine. The number is AUTOVON 835-AMTP (2687), or commercial 404/545-2687.

Units involved in the AMTP field trials are encouraged to use this line to leave messages that pertain to the Infantry School's prototype AMTP 7-247J-10 (Mechanized Infantry Platoon and Squad) and the supporting drill manual, FC 7-21. Units not directly involved in the AMTP field trials may also use this line to comment on or ask questions pertaining to any other

USAIS ARTEP product.

The Collective Training Branch, Training Division, DOTD, will return your call within two working days. Callers who require immediate information regarding the AMTP or other ARTEP products (except for light infantry division products) should call AUTOVON 835-4848/1317, or commercial 404/545-4848/1317.

Comments or questions concerning light infantry division products that require immediate responses should be addressed to the Light Infantry Task Force at AUTOVON 835-5298/5620, or commercial 404/545-5298/5620.

THE FOLLOWING NEWS ITEMS were submitted by the Directorate of Combat Developments:

- **Small Unit Radio (SUR).** The current small unit transceiver (SUT) program — AN/PRC-68 — was ended by Department of the Army during the fourth quarter of Fiscal Year 1984. The SUT was too expensive (\$2,500) and was not consistently reliable in an operational environment.

The Infantry School was then designated the proponent for the new SUR, which will be a non-developmental item (NDI) of equipment and considered a near-term substitute for the AN/PRC-68.

The SUR will cost approximately \$1,500 and will have certain operational characteristics, such as external tuning, longer battery life, and 2,320 channels, that were not available in the SUT.

## INFANTRY HOTLINE

To get answers to infantry-related questions or to pass on information of an immediate nature, call AUTOVON 835-7693, commercial 404/545-7693.

For lengthy questions or comments, send in writing to Commandant, U.S. Army Infantry School, ATTN: ATSH-ES, Fort Benning, GA 31905.

A Request for Proposal (RFP) was presented in August 1985 to identify potential SUR candidates, and a test leading to a SUR selection will be conducted during this last quarter of this calendar year. The SUR is scheduled to be fielded in the fourth quarter of Fiscal Year 1986.

- **Combined Arms Mission Area Analysis.** The Directorate is preparing to undertake a combined arms mission area analysis in Fiscal Year 1986. Preliminary coordination has been made and methodology has been developed; modeling and analytical support will begin during the first quarter of FY 1986. The analysis is expected to run for several months.

All TRADOC schools are expected to participate in the analysis, with the major contributions being made by the maneuver proponent schools. This is the first time a mission area analysis has been developed from a combined arms viewpoint, and it is expected to yield significant results in the fields of training, doctrine, and materiel deficiencies.

THE COMBINED ARMS AND TACTICS Department of the Infantry School has given us the following doctrinal literature update (see INFANTRY, March-April 1985, pages 38-40):

- **FM 7-7J, The Mechanized Infantry Platoon/Squad (BFV).** Estimated DA pinpoint distribution in January 1986.

- **FM 71-2J, The Tank and Mechanized Infantry Battalion Task Force.** Final draft forwarded to CAC for approval, September 1985. Estimated DA pinpoint distribution in June 1986.

- **FC 71-6, Battalion and Brigade Command and Control.** Distributed in August 1985.

- **FM 90-4, Air Assault Operations.** Coordinating draft, August 1985.



• **FM 90-8, Counterguerrilla Operations.** Final draft forwarded to CAC for approval, July 1985.

• **FM 7-93, Long Range Surveillance Unit (LRSU) Operations.** Coordinating draft, September 1985.

Queries concerning the School's doctrinal literature program should be directed to Mr. Jim Gallagher, ATSH-B-ID, telephone AUTOVON 835-7162/4919 or commercial 404/545-7162/4919.

**THE ARMY'S FLEET** of M113 vehicles is again being modernized, and the new M113A3 vehicle is scheduled to start rolling off the production line in February 1987. It has a projected price tag of \$225,000 a copy, which is about \$65,000 more than the M113A2, but a number of extras have been added to give it a better combat capability. (See *INFANTRY*, January-February 1985, page 10.)

The new vehicle will have a 275-horsepower power train, which will give it better dash and cross-country speed and improved fuel economy, and will permit the addition of bolt-on space laminated armor inside the vehicle to improve troop survivability. In addition, the fuel tanks have been moved outside the vehicle, which will reduce the fire hazard within the vehicle in the event of a hit. The fuel tanks are now bolted on the rear of the vehicle and are protected by armor shielding.

The fuel tanks are identical and interchangeable, and can be rapidly replaced in the field if they are damaged. An automatic fuel control system permits the vehicle to operate even if one of the fuel tanks is damaged.

The removal of the internal fuel cell has increased the internal stowage space of the vehicle by 16 cubic feet; this added space can be used for additional ammunition or more crew equipment.

The M113A3 will have a steering yoke instead of steering laterals; this is expected to improve maneuverability, make the vehicle easier to drive, reduce driver fatigue, and make for safer operation. It has a maximum speed of 40 miles per hour and an average cross-



The M113A3.

country speed of 22 miles per hour. Its 95 gallons of diesel fuel give it a cruising range of 300 miles.

Modernization kits — engine, transmission, external fuel tanks, and inter-

nal spall suppressive armor system — will be purchased by the Army this fiscal year and next to upgrade a number of its M113A2s. The modernization work will be done at Army facilities.

**THE ARMY IS REVAMPING** its mortar structure. For example, the 120mm mortar will replace the 4.2-inch mortar in certain units, and the improved 81mm mortar and the 60mm light weight

company mortar systems will be fielded in all light infantry battalions and companies in the light infantry, airborne, and air assault divisions. Here is what the mortar structure will be:

TYPE UNIT	BATTALION LEVEL	COMPANY/TROOP
Armor and mechanized infantry battalions (modernized J-series TOE)	Six 120mm mortars	None
Standard infantry battalions	Four 120mm mortars	Three 81mm mortars (H-series TOE)
Light infantry battalions in the light infantry, airborne, air assault, and mountain divisions	Four 81mm mortars	Two 60mm mortars with crews
Ranger battalions	None	Two 60mm mortars with crews
Armored cavalry squadrons (Div)	None	Three 120mm mortars
Armored cavalry squadrons (ACR)	None	Two 120mm mortars

THE DIRECTOR OF THE National Infantry Museum has furnished the following news items:

Members of the 7th Armored Division honored their comrades on Memorial Day, 30 May 1985, with a floral tribute at the Museum. The standing arrangement in the shape of the Division's patch, was placed at the Division's monument on the Museum's grounds by Lieutenant Colonel Lon Maggart and Command Sergeant Major Felix Helms (both from the 2d Battalion, 69th Armor, which is stationed at Fort Benning) in the presence of some 200 visitors.

Memorial Day observances at the Museum also included the reading of a poem written by the late Medal of Honor recipient Audie Murphy. The framed poem, which Murphy wrote in 1948, is a recent gift to the Museum and has been added to its Medal of Honor collection.

The German section of the Museum's Foreign Gallery has been expanded through the display of a number of ceremonial items that belonged to Field Marshal Hermann Goering, commander of the *Luftwaffe* during World War II. One of the items is a diamond-studded baton, embellished with gold and silver emblems, and inscribed (translation), "The Fuehrer to the first Field Marshal General of the Air Force, Hermann Goering, 4 February 1938." Also displayed are a diamond-circled medallion, a large gold and silver document case, and a gold-hilted sword that was presented to Goering by the Italian Premier, Benito Mussolini.

Another piece of Nazi memorabilia recently given to the National Infantry Museum is a linen table napkin that belonged to Hitler's Minister of Foreign Affairs, Joachim von Ribbentrop. The fine linen napkin, delicately embroidered with a design that features the Nazi emblem, will be displayed along with pieces of china, also from the Nazi period.

The reference library at the Museum continues to grow. Unit histories are a valued part of the collection, and several have been received in recent months. A substantial number of works on the American Civil War, including

books on Generals Grant, Sherman, and Sheridan as well as on specific campaigns of the war, have also been received. Other donations include books on uniform items from the World War I and Vietnam War periods.

The 5th Annual Infantry Museum Road Race will be held at Fort Benning on 12 October 1985. The race, one of the largest road races in the Southeast, has raised approximately \$50,000 for the Museum during the past four years. The entry fees are \$5.00 per individual and \$35.00 per seven-man team.

The National Infantry Museum Society, formed at Fort Benning a number of years ago to help the Museum with financial and volunteer support, is open to anyone who is interested in joining. The cost is \$2.00 for a one-year membership or \$10.00 for a lifetime membership.

Additional information about the Museum and the Society is available from the Director, National Infantry Museum, Fort Benning, GA 31905-5273, telephone AUTOVON 835-2958 or commercial 404/545-2958.

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THE PRESIDENT OF the United States Army Infantry Board has given us the following news items:

- **Extended Cold Weather Clothing System (ECWCS).** This system was developed as a result of a continuing program to design an integrated individual fighting system that reduces the weight of a soldier's load while giving him better environmental protection over a wide range of climatic conditions. (See *INFANTRY*, September-October 1984, page 6.)

The ECWCS is a head-to-toe cold weather clothing system that weighs less than the current Standard A cold weather clothing but gives a soldier increased protection. It consists of:

- A battle dress uniform cap and a nomex balaclava.
- Two systems of handwear — a fiber-pile trigger-finger mitten insert with a five-finger contact glove, and a five-finger polytetrafluoroethylene (PTFE) glove — that can be used with the standard extreme cold weather mitten with liner and with the trigger-

finger mitten.

- The standard white vapor barrier (VB) boot with cushion sole socks and polypropylene (PP) liner socks.
- A PP long sleeve, turtleneck undershirt and PP long underpants.
- A nine-ounce fiber-pile shirt.
- A PTFE parka with hood.
- The standard field trousers.
- PTFE trousers.
- Two varieties of a removable extreme cold insulating layer (four-ounce polyester batting liners for the field coat and field trousers, used in conjunction with fiber-pile bib overalls and six-ounce polyester batting liners for the field coat and field trousers).
- The standard overwhite parka, trousers, and mittens.
- A fur ruff hood.

The Infantry Board conducted the most recent test of the ECWCS at Fort Wainwright, Alaska, from 18 February to 8 March 1985 to evaluate its military utility in an arctic environment. Soldiers from the 6th Battalion, 172d Infantry Brigade took part in back-to-back five-day field exercises, and their previous arctic experience paid immediate dividends as the temperature ranged from a high of minus 26 degrees Fahrenheit to a low of minus 70 degrees Fahrenheit.

Following the field exercises, airborne operations were conducted on a drop zone covered with four to five feet of snow.

The ability of the soldiers to perform selected MOS and ARTEP tasks while wearing the ECWCS and its compatibility with the fighting loads and other equipment carried by the soldiers were evaluated by observation, questionnaire, and interview. In addition, the Cold Regions Test Center concurrently conducted an extended wear and durability test of the ECWCS.

The test results will be used by the Infantry School in making recommendations concerning type classification.

- **Rocket, HE, 84mm XM136 (AT4).** As armor technology continues to improve, so must the effectiveness of the Army's family of antiarmor weapons. For some time the current lightweight antiarmor weapon, the M72A2 LAW, has been known to be



limited in both its range and its penetration capability.

Because of its concern for the increased armor threats and the rising research and development costs of lightweight antiarmor weapon systems, the Senate Appropriations Committee in 1982 directed that the Army begin testing available foreign and domestic light antiarmor systems.

From March through May 1985, the Board conducted an operational test to provide data and associated analysis on the effectiveness of the AT4, an 84mm, high explosive, light antiarmor weapon. The test results will be used to support decisions on whether the AT4 is suitable for Army and Marine Corps use.

The AT4 is a self-contained, lightweight, disposable weapon that is issued as a round of ammunition. It consists of two major components, the launcher and the cartridge. (See *INFANTRY*, January-February 1985, pages 9-10, and *INFANTRY*, March-April 1984, pages 20-21.)

The launcher is a fiberglass-reinforced smoothbore barrel equipped with an aluminum venturi, a firing mechanism, front and rear rifle-like sights, and a carrying sling. The cartridge consists of a shaped-charge, fin-stabilized projectile and cartridge case assembly.

The AT4 system includes a 9mm training device consisting of a single-shot breech and barrel assembly contained within an AT4 launcher. Nine millimeter (9mm) tracer cartridges with downloaded propellants designed to have a trajectory similar to that of a tactical round are used with the training device.

Using training strategies developed by the Infantry School's Directorate of Training and Doctrine, soldiers from the 197th Infantry Brigade and Marines from the 2d Marine Division, Camp Lejeune, North Carolina, formed a composite test platoon. They employed the AT4 in a series of realistic infantry field exercises based on Army Training and Evaluation Program (ARTEP) requirements.

The test soldiers engaged moving and stationary armored targets at

ranges of 150 to 500 meters and at speeds of 0 to 15 miles per hour during daylight and darkness (under illumination). The target vehicles were M47 tanks and M114 reconnaissance vehicles known as remote controlled target vehicles (RCTV). These computer-controlled, programmable vehicles, on loan from Fort Carson, Colorado, allowed the test soldiers to fire live tactical warheads at attacking and withdrawing armored vehicles without risk to vehicle crews.

Airborne operations were also conducted using a special AT4 jump pack designed by the Natick Research and Development Center. Infantry School, Infantry Board, and Marine Corps parachutists made jumps from C130, C141, UH1, and UH60 aircraft.

Airmobile and air delivery operations using UH1 and UH60 aircraft were also conducted, as were vehicle operations using M113 and Bradley vehicles. These tests were conducted to determine the AT4's compatibility with those aircraft and vehicles.

Throughout all of the testing phases, questionnaires and interviews were used to collect subjective data from the testers and the test participants. The results of the operational test will be used by the Infantry School and the Marine Corps Development and Education Command to support their recommendations concerning the suitability of the AT4 to fill the role of a light antiarmor weapon for the Army and the Marine Corps.

• **Optical Sights, M16A2 Rifle.** In late 1986 the Army will receive its first delivery of M16A2 rifles, but soldiers may find that they do not look like the M16 rifles they have been using. (See *INFANTRY*, July-August 1985, page 10.)

In September 1984 the Army awarded a contract for the design and construction of a prototype "enhanced" M16A2 rifle with an integrated sight base that would permit the mounting of either day or night optical sights. The Army's Test and Evaluation Command has indicated that the new rifles should be delivered in the desired configuration — either with the standard carrying handle or with the optical

sight mounting base on the upper receiver.

The weapons that arrive in late 1986 may incorporate the optical sight feature after the Armament Research and Development Center (ARDC) has completed its evaluation of the data the Infantry Board collected during a recent test of the modified M16A2 rifle and six different optical sights.

Twenty-four soldiers and ten Marines took part in the test during the period 7 March to 23 May 1985. Each of the 34 firers was trained in the use and maintenance of the M16A2 rifle with the standard iron sights and the modified M16A2 rifle equipped with the various optical sights.

The optical sights, mounted on the rifle by commercial scope mounting rings, included both 2.5X and 6X telescopes with cross hair reticles, a 1X (unity) reflex sight with aiming point reticle, a 1X (unity) reflex sight with a 3X attachment and aiming point reticle, a 3.5X telescope with illuminated T reticle, and a 4X telescope with illuminated post reticle.

Each of the firers, using the standard M16A2 rifle with iron sights and the modified M16A2 rifle equipped with each of the optical sights, took part in a series of nonfiring target acquisition exercises during day, night, dawn, and dusk hours, and during a series of day live fire target engagement exercises.

The target acquisition exercises used live personnel targets positioned up to 1,000 meters from the observers during the day and as far as 300 meters under other light conditions. The live firing was done to collect hit data for targets engaged at known distances ranging from 50 to 580 meters, and for targets at distances unknown to the firers but which were from 50 to 300 meters downrange.

To place additional stress on the firers, a number of the exercises required that they be completed within a limited period of time.

Human factor and safety data were collected throughout the testing program.

The test results will be used by ARDC to decide whether the M16A2 rifle should be modified to permit the



mounting of an optical sight.

• **XM40 CB Protective Mask and US-10 Respirator.** The need has long been recognized for a protective mask that provides more protection against field concentrations of all chemical and biological agents in vapor and aerosol form. As early as 1974 the Army approved a requirement document for a mask to replace the M17A1 (basic field use), the M9A1 (special purpose use), and the M25A1 (combat vehicle crewman) protective masks. In 1978, all of the services joined in approving a Joint Service Operational Requirement for a new mask.

Since then, a number of masks have been developed and tested, including the XM29 unimolded silicone facepiece with integral lens; the XM30 family of masks with the single bubble polyurethane lens; and the minimum change/minimum risk (MC/MR) mask design, which combined desirable features from the M17A1 and XM30 masks.

A refined MC/MR, designated the XM40, and the British S-10 respirator were evaluated during tests in 1983 and served as the basis for modifications that evolved into two XM40 designs and the US-10 respirator.

Each design is a family of protective masks that includes masks for basic field use (XM40A, XM40B, US-10), for special purpose use (XM40A and B SPM, US-10 SPM), for use by armored crewmen (XM42A and B, US-12), and for use by air crewmen (XM41A and B, US-11).

The basic XM40 mask design includes a silicone rubber faceblank with molded-in head harness buckles, in-turned peripheral seal, six-point adjustment head harness, rigid lenses mechanically attached to the faceblank, a front and a smaller side voice-mitter, and a cheek-mounted filtration canister that can be interchanged with the side voicemitter and worn on either side.

The XM40SPM is similar to the basic design, but its side voicemitter has been replaced with an additional inlet valve assembly and filtration canister. The XM42 also parallels the basic design and allows the armored crewman

to hook up to his vehicle's on-board gas particulate filter unit; in addition, it has an internally mounted microphone and can be connected to a vehicle's communication system.

Variations between the XM40A and the XM40B designs are basically dimensional. The design configurations of the US-10 family of masks parallel those of the XM40, but the masks are molded from a chlorobutyl elastomer compound and have patented rigid binocular lenses.

The operational effectiveness of the XM40 and US-10 field masks and their variants for special-purpose use and for armored crewmen was compared with that of their respective standard counterpart masks — M17A1, M9A1, and M25A1 — during a test conducted by the Board from 19 February to 7 June 1985. The testing was done under tactical conditions in a simulated chemically contaminated environment. It involved soldiers from mechanized infantry platoons, 81mm and 107mm mortar sections, and TOW sections, drivers of tracked and wheeled vehicles, mechanics, parachutists, and EOD personnel.

The test participants alternately wore their standard protective masks and, in turn, each of the corresponding masks from each family of masks while performing combat and combat support tasks. Exercises included negotiating an obstacle course, conducting wheeled and tracked vehicle operations, employing and firing individual and crew-served weapons, and conducting platoon level field exercises and EOD and airborne operations.

Data was collected in the areas of functional performance, compatibility, training, human factors, safety, logistical supportability, reliability, availability, and maintainability. The test results will be used in arriving at a procurement decision.

**BRADLEY INFANTRYMEN** from the 3d Infantry Division were the first in Europe to use their vehicles and on-board weapons in live fire aerial gunnery training. The training took place at Todendorf on Germany's north coast.



Bradley crewmen from throughout the division were selected by their units to attend the week-long exercise, which was preceded by a week of ground gunnery training at the nearby Putlos training area. Air Defense Artillerymen served as technical advisors.

Several Bradley master gunners and crew members recorded and compiled data on all Bradley crew firing performances. This information will be forwarded to Department of the Army to be used in Bradley aerial training improvements.

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**THE VOICE OF THE ARMY NATIONAL GUARD** is open for business, providing toll-free information to any Guard member who wants to know more about a wide range of current subjects.

The information is available 24 hours a day; the number is 1-800-245-0055. A similar, but more limited, service had been available to Guard members in the past but under a different telephone number.

The calls are answered in the National Guard Bureau with a recorded introductory message and instructions for selecting a topic of interest. Those who wish may leave a short recorded message or question at the end of the presentation.

The system can be activated only by touch tone telephones. Those individuals who dial the toll-free number with a rotary or pulse phone will hear only the introduction and will not be able to gain access to the selected topics or leave messages.

The program coordinator welcomes suggestions on the system. His number is AUTOVON 227-3065 or commercial 202/697-3065.





## First Jump in China

BRIGADIER GENERAL BERNARD LOEFFKE

- *The People's Liberation Air Force will provide parachute.*

- *The People's Liberation Air Force will provide airplane.*

- *The People's Liberation Air Force will take action to ensure safety of jump.*

- *General Loeffke will examine and pack the parachute himself.*

- *In case of accident, neither side will blame the other.*

These were the initial ground rules set forth when I was invited to be the first U.S. officer to jump with the Chinese People's Liberation Army (PLA) during my tour as Defense Attache to China. The fourth ground rule was eventually modified. (Like the Soviets, Chinese paratroopers are assigned to their country's air force. The Chinese People's Liberation Air Force is subordinate to the PLA.)

The jump was to take place during the period of 9-13 May 1984 in Wuhan Military Region, about 200 miles south of Bei Jing. To coordinate the various details of the jump, a meeting was arranged with Chinese parachute officers on 4 May. The exchange at that meeting went something like this:

**Parachute Officer (PO):** "General, we want to assure that you have a safe jump with us. We want, therefore, to ask you several questions. Finally, we

need to agree on the wording of a document that we will both sign. First, please tell us your desires concerning the altitude of the jump and the speed of the aircraft."

**Loeffke (L):** "I wish to jump the way you normally jump."

**PO:** "It is agreed then that we will jump at an altitude of 800 meters and at a speed of 180 kilometers per hour. We should now agree on the letter we are asking you to sign. We agree to provide a safe aircraft and assure that safe conditions exist on the ground — that is, no obstacles and moderate winds. You will be responsible for packing and using your own parachute."

**L:** "I wish to jump Chinese parachutes packed by your riggers."

**PO:** "We would rather you jump your own parachute packed by yourself. We will, however, discuss your wishes to jump Chinese parachutes. Our concerns are that our chutes are different and you may not be familiar with their handling. What personal equipment do you need?"

**L:** "I have uniform and boots, but will need a helmet."

**PO:** "We will provide you a helmet. Do you have your own knife?"

**L:** "No, what do you use the knife for?"

**PO:** "We use it to cut our straps in case we have problems such as becom-

ing entangled with the airplane."

It was obvious that the Chinese were concerned with the safety of the jump. They finally agreed, however, to let me use a Chinese chute for my jump.

During the discussion, I learned that their methods differ from ours in several ways. For example, the jumper needs to hold the Chinese reserve chute tightly as he exits the aircraft or it may come up and hit him in the chest or chin. Also, the knife is needed because the Chinese parachute has no capewell releases. In the case of an entanglement with the aircraft, therefore, the parachutist cannot be hauled in and is expected to cut the straps where the capewell releases are on the U.S. chutes. The paratrooper then falls free and uses his reserve chute.

All Chinese paratroopers pack their own chutes. Each is assisted by a colleague, and every platoon has a specialist who oversees the packing. It takes about 30 minutes to pack a chute. They have no special area to use. There are no parachute packing sheds; they simply use a parade ground or the floor of a warehouse. A parachute is used about 80 times before it is cannibalized for other purposes.

Interestingly, there are no special riggers for equipment drops either. The artillery battalions assigned to each regiment, for example, are re-



Members of Chinese PLA double check General Loeffke's parachute before jump.

sponsible for packing the parachutes of the organic artillery that will be dropped.

Jump procedures are equally challenging. Chinese paratroopers exit the aircraft falling forward, body bent almost perpendicular, never touching the door of the aircraft with their hands. Chinese soldiers fold their arms on top of the reserve chute, while U.S. soldiers place their hands to the sides of the reserve and jump up and out. The Chinese have a pilot chute on their main parachute, but none on the reserve, while U.S. parachutes are configured just the opposite. The signals to exit the aircraft are similar, however. A red light with an intermittent noise signal advises the troops to get ready and hook up. A green light and a continuous signal is the command to jump.

Parachute landing instructions are vastly different. U.S. soldiers are taught to face into the wind to slow down the horizontal speed of the chute. The Chinese face downwind so that they can land facing forward and run and collapse their canopies.

The U.S. soldier, until recently, has been taught to look to the horizon so that he will not unconsciously tighten up when he hits the ground in a close, bent-leg, parachute landing fall, rolling to either side. He lets buttocks and push-up muscles take up much of the

impact of the fall. The Chinese soldier looks at the spot where he is going to land and lands on his feet with knees bent, and then starts running.

On 11 May, I was introduced to these airborne procedures and given a demonstration of the Chinese methods of exiting the aircraft and of landing. After the demonstration, I was taken to the military airport to meet the pilots and crew who would be responsible for the jump from a four-engine, Soviet AN-2 aircraft.

The next day, the day before the jump, two officers, accompanied by the Airborne Division Chief of Staff, came to the hotel to pack my parachute. After the packing was completed in the lobby of the hotel, I was asked to sign a statement to verify that I was satisfied with the way the chute was packed. Two Airborne Division doctors then came to my hotel room to take a blood pressure reading and conduct an electrocardiogram. One of the physicians examined me to assure there were no sprains or lumps. Finally, the two doctors agreed that I was fit to jump.

The wind on the day before the jump was gusting up to 50 miles per hour. On the morning of the jump, the wind was still too strong, and the jump was delayed for eight hours. As the jump hour approached, the wind was still gusting up to 20 miles per

hour, well beyond allowable U.S. training safety standards, but within limits for the Chinese.

Finally, the time for the jump arrived. As the AN-2 reached 2,400 feet, one of the soldiers who had seen me exiting from the mock door earlier leaned over and whispered: "General, if you jump the way you did at the mock-up, you will get twists in your risers. To jump safely with our chute, you must not touch the sides of the door and spring out of the aircraft." But it was too late then to change habits, so I jumped the U.S. way. Sure enough, when the chute opened, the risers had several twists in them.

The descent was somewhat unusual. Two Chinese jumpers leaped right behind me and flanked me coming down. They were there to give me directions so I would not drift from where they wanted me to go. The ground was soft mud so even with the strong wind the landing was uneventful. Thus ended the first U.S. Army/Chinese PLA parachute operation.

Some interesting airborne lessons were learned on both sides. The Chief of Staff of the Airborne Division later told me that after seeing our parachute landing falls, he was going to consider adopting these techniques. He also felt that our static line was better and that they needed a quick release like the one we used.

Among other subjects that I felt the Chinese might explore in detail was the relative merits of landing with and against a 20-mile an hour wind.

All in all, for me this was a most rewarding experience. We and the Chinese have much to learn from each other.



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# The MRP Works

CAPTAIN THOMAS A. PERSON, JR.

The maintenance rally point (MRP), which is part of Division 86 doctrine, can be applied successfully today. It is a time-saving asset that could turn the tide of battle by decreasing the down-time of mission-essential vehicles and equipment. The 1st Battalion, 5th Infantry, at Schofield Barracks, Hawaii, has employed this concept on three major deployments from the island of Oahu and has found that it works quite well.

The fundamental idea behind the maintenance rally point (MRP) is to find and repair damaged items of equipment as quickly as possible and return them to the forward units. The MRP shuns the traditional notion of co-locating maintenance repair with the combat trains. Instead, the MRP floats in covered and concealed positions four to six kilometers behind the FLOT (forward line of own troops) and frequently moves forward to locate and repair or recover vehicles. To make this "repair forward" maintenance operation work, it is important for leaders to understand its capabilities and for all other personnel to understand their respective missions.

The essential elements of the battalion maintenance section are divided into two parts, the maintenance rally point and the field trains. The specific break-out of personnel and equipment will vary depending upon a unit's assets.

In this battalion's case (operating in a light infantry division), the MRP is manned by the battalion motor officer, the battalion motor sergeant, a wrecker operator, a welder, three mechanics (63B), and one NCO. It has a quarter-ton truck with tow bar, a five-ton wrecker, and a two-and-a-half-ton PLL truck.

The field trains are manned by a battalion maintenance technician, a shop foreman (staff sergeant), a PLL clerk, a TAMMS/dispatcher clerk, and the remaining three mechanics. Its vehicles are a one-and-a-quarter-ton truck with RTO equipment, and two two-and-a-half-ton trucks with maintenance tents.

The process begins when the unit that owns a non-mission capable (NMC) vehicle contacts the MRP and provides a description of the malfunction. This is usually done by radio on the battalion administration-logistics (ALOG) net. The battalion motor officer (BMO) then goes to the vehicle with a trained mechanic and tries to determine what the problem is.

## TIME

The time standard against which the BMO must work is the "time-to-repair guideline" established by the battalion executive officer and the battalion logistics officer (S-4). (The standard this battalion uses is two hours, and whenever possible the vehicle is repaired on the spot.) If the repairs are likely to take longer than that, or if the vehicle cannot be repaired on site, the BMO sends it to the MRP.

Vehicles in the MRP are also subject to the time-to-repair guideline, usually four to six hours. The unit also coordinates with the direct support maintenance company of the forward support battalion so that a direct support contact team can be co-located with the MRP. This allows limited direct support level repairs to be made and further reduces the amount of time a piece of equipment is away from the

front lines. Vehicles that are repaired in the MRP are then returned to the owning units.

If the repairs cannot be completed in the MRP within the time guideline, the equipment is evacuated to the more conventionally configured maintenance section located in the unit field trains. If time permits, the BMO evacuates it with the five-ton wrecker stationed in the MRP. The BMO does have the option of calling the battalion maintenance technician forward from the field trains to free the MRP, but in nearly 75 percent of the cases in the battalion's exercises, the MRP has evacuated a vehicle because the damage to it called for it to be lifted by a wrecker. The mission of the maintenance section in the field trains is to conduct repair operations at the organizational level and to evacuate items of equipment that must go to higher maintenance levels for repair.

The logistics of a highly mobile, well forward MRP can be difficult to manage. For example, it is necessary to decide how much of the prescribed load list (PLL) is to go with the MRP and how much is to remain in the unit field trains. As much as half of the combat PLL may be needed in the MRP to maintain the repair rate necessary to support the tactical mission adequately. Along with PLL, direct exchange items such as tires, radiators, and power-generation equipment must be available in the MRP. And with so much happening at once and so much to consider in the planning stages, it is easy to see why the battalion motor officer must be technically and tactically prepared to do this demanding job. In the MRP he may be required to repair, cannibalize, and evacuate items of equipment at the same time he is

displacing to a new position or defending his present one.

The BMO is also given some straightforward guidelines that establish vehicle repair priorities. On occasion, it may be necessary for him to "down" some vehicles to keep the battalion's mission-essential vehicles "up." The priority guidelines will vary depending on the type of battalion and the battalion's mission. A motor officer, however, must be allowed to modify the established priority on the basis of what is damaged or destroyed. (In most cases, he knows the true status of combat power within the unit before the tacticians do.)

In general practice, the MRP and the combat trains will rarely be co-located because of the number of "customers" and vehicles associated with the combat trains. The addition of the MRP with its frequent "service calls" would only increase the signature

of the combat trains and make its location a lucrative target. Depending on unit assets and the particular tactical scenario, though, it may be necessary to co-locate the two for security reasons during the hours of darkness.

The maintenance rally point must be highly mobile and self-supporting, and it must be able to defend itself initially. A major problem for any unit is preparing its maintenance personnel to conduct sustained combat operations over an extended time and distance. The soldiers in an MRP must be able to work and move over a considerable area, frequently for days at a time, with little or no rest and few personal comforts. Accordingly, careful plans must be made for rations, water, additional petroleum products, and crew-served weapons to ensure the continued health, high morale, and effectiveness of the soldiers who must man a maintenance rally point.

Using the "fix far forward" principle, the 1st Battalion, 5th Infantry, during Team Spirit '83 operated over considerable distances, but never had more than two vehicles down at any given time.

It should be noted, however, that the ultimate success of forward maintenance in a unit is dependent upon an effective unit maintenance program. Without one, there is no system that can solve a maintenance problem either in training or in combat.



Captain Thomas A. Person, Jr., recently completed the Infantry Officer Advanced Course and is now in the degree completion program. He formerly served as battalion motor officer and battalion S-4 in the 1st Battalion, 5th Infantry in Hawaii.

## The Enfield Rifle: Death of an Old Friend

CHARLES R. FISHER

The first time I ever saw an M1917 Enfield rifle was when the supply sergeant of Company E, 7th Battalion, Maryland State Guard handed me the weapon that was to be mine while serving in that unit during World War II. Until then my concept of a service rifle was either the M1903 Springfield or the then relatively new M1 Garand. I had never heard of the M1917 even though thousands of them had been in war reserve storage since the end of World War I.

When I asked the sergeant why the unit used Enfields rather than Springfields he replied, "Because we can get 'em." Until the sergeant enlightened

me, it had never occurred to my 17-year-old mind that there could be such a thing as a shortage of standard service arms in a great nation such as the United States. Therefore, I was introduced that day not only to the M1917 rifle, but to the fact that even wealthy and powerful nations can be caught short of crucial war equipment.

Perhaps it was appropriate that my introduction to the Enfield should come under such circumstances — the weapon had been hastily adopted by the U.S. Army during World War I precisely *because* the nation had been caught short of enough Springfield rifles to arm its rapidly expanding

forces. In any case, it was love at first sight, and I have been an admirer of the M1917 ever since.

Granted, the M1917 was a little on the heavy side (9.0 pounds, compared to 8.7 pounds for the Springfield) and a little long (the barrel was 26.0 inches long compared to 23.79 inches for the Springfield), but it had sleek, almost elegant lines for a military rifle and, with its swept-back bolt handle, had a racy, streamlined appearance that made it look years ahead of its time. Furthermore, it was strong, of high quality workmanship, and capable of handling the powerful .30-06 cartridge.





Soldiers of the 2d Battalion, 329th Infantry, during rapid fire portion of their Enfield rifle instruction, France, 1918.

A major disadvantage of the Enfield was a belt sleeve design that could permit hot gasses under pressure to traverse its length if a primer was punctured. These gasses could then escape through the rear of the bolt and do considerable damage to a shooter's eye. Although a punctured primer was relatively rare, some soldiers no doubt learned the hard way about this design idiosyncrasy.

Another slight disadvantage of the Enfield applied only to soldiers who had to drill with the weapon. Since there was no magazine cut-off on the rifle, the follower would pop up when the bolt was opened for the command "Inspection, Arms!" The bolt could not be closed until the follower was depressed — a movement not included in the manual of arms. A sheet steel device that could be inserted in the magazine to hold the follower down eliminated this problem, although the device had to be taken out of the piece before charging the magazine.

Among the many virtues of the M1917 was its great strength. Along with the Japanese *Arisaka*, it was one of the strongest rifles of its day. For this reason many M1917s were converted to magnum calibers when the rifles appeared on the surplus market after World War II. (Lamentably, this also guaranteed that relatively small numbers of them would survive to the present in their original military condition.)

The rear sight, although not adjustable for windage, used a large aperture mounted on the receiver bridge close to the shooter's eye. In fact, the M1917 was one of the first military rifles issued in large numbers that used a true aperture sight. The battle sight aperture was calibrated for four hundred yards. Therefore, soldiers using the Enfield had to learn to hold their aim under the target at shorter ranges. The leaf sight was scribed at intervals for ranges varying from 200 to 1,600 yards. From 200 to 900 it was graduated in intervals of 100 yards. From 900 to 1,600 yards the scribed lines represented changes of 50 yards. The leaf sight did not compensate for the drift of the bullet at long range.

Although its sight was not as sophisticated as the sight on the M1903 Springfield, the position of the Enfield's aperture was just right to make the sight one of the best combat rifle sights ever developed. (Fortunately, many newer weapons such as the M1903A3, M1, G3, M16 and others use the same rear sight location as the M1917.)

Other virtues included a sleek one-piece full length walnut stock, excellent materials (for the 1917-18 period), and an attractive finish. In terms of materials used in its manufacture, the M1917 was ahead of the M1903 Springfield. For example, all three manufacturers of the M1917 used nickel steel in the fabrication of the receiver whereas

M1903 Springfield rifles produced at Rock Island Arsenal used heat treated carbon steel receivers until 1918 and Springfield Armory did not make the change to nickel steel until 1927.

My introduction to the M1917 came about as the result of a curious and complex set of circumstances. After the outbreak of World War II in December 1939, a nervous America kept a close watch on events in Europe and Asia. Although the U.S. was not yet involved in the struggle, Congress ordered the National Guard to active Federal service in September 1940. The National Guard units took their rifles with them, of course, when they reported for active duty. Congress, in October of the same year, then authorized those states that so wished to organize state forces for home defense. The War Department was ordered to help the states train and equip these state guard forces.

Part of the equipment made available to the states were M1917 rifles taken from war reserve stocks. An issue of these rifles was authorized at one rifle for each two National Guardsmen then on active Federal service. All told, 111,276 Enfields were earmarked for use by the 48 states. After the United States entered the war on 7 December 1941, the Army recalled the M1917s from the state forces but then began to re-issue them in 1944 when more modern military weapons became available in sufficient quantities for the active forces. My M1917 rifle was a part of this 1944 re-issue.

The actual conception and birth of the M1917 took place before World War I when the British government decided to replace the SMLE (Short Magazine Lee Enfield) .303 (later renamed the Rifle No. 1, Mark III) with a stronger Mauser-type rifle. It also decided to replace the aging .303 rimmed cartridge with a more powerful rimless round. In 1910 design work on the rifle commenced, and three years later the Pattern 1913 rifle and the powerful .276 (also referred to as .280) cartridge were officially accepted by the British.

The P13, as it was called, was almost identical to the later M1917 except for



its .280 caliber and its chambering, and it was a true product of its time. The swept-back bolt handle was intended to place the handle close to the trigger to facilitate rapid fire, because the British had observed the devastating effects of rapid rifle fire during their colonial wars of the 19th century. Winston Churchill, for instance, spoke of the "rifle storm" unleashed by the British infantry against the Mahdist forces at the battle of Omdurman in 1898.

Most primitive enemies cooperated magnificently with the British by deploying *en masse*, thereby presenting a target six feet high multiplied by the width of the enemy formation (at Omdurman, the Khalifa's army presented a front nearly three miles wide.) Even a mediocre rifleman could place nearly every bullet in a target such as this. The fact that a future European enemy might wear *feldgrau* uniforms, fight from trenches, and use machine-guns to provide its volume of fire did not diminish the British desire for a weapon that could deliver a great volume of rapid fire. And the P13 could do that.

Another feature of the P13 was its firing mechanism, which completed most of the cocking action on the closing stroke of the bolt. The Mauser, from which the P13 was largely copied, used the opening action of the bolt to cock the piece. The British apparently felt that the full force of the opening stroke should be reserved for extracting the fired cartridge case. This would be especially true when firing in gritty or sandy conditions. Again, the British experience in Africa, India, and the Sudan seems to have influenced this design feature of the P13.

Before many P13 rifles could be manufactured, though, the British entered World War I in August 1914. Since the overwhelming bulk of the British armed forces carried the older SMLEs in .303 caliber, the British ordnance people wisely decided that it would be best to keep both the .303 round and the SMLE in production. They also decided to continue production of the P13 but in .303 rather than .280 caliber to simplify ammunition

supply. This new combination of rifle and cartridge became the P14.

Most of the P14 rifles were manufactured by contractors in the United States, the largest of which were the Remington Arms Company of Illion, New York; the Winchester Repeating Arms Company, New Haven, Connecticut; and the Midvale Steel and Ordnance Company of Eddystone, Pennsylvania. In theory, the three plants could produce a total of about 11,000 rifles per day, although they never reached this figure while working under the British contracts. The contracts themselves were terminated between 1 June and 21 July 1917, and this proved fortunate for the United States, since we had declared war on Germany in April 1917 and were in desperate need of weapons.

## WAR EMERGENCY

The war emergency required the rapid enlargement of the U.S. armed forces. By November 1918 nearly five million men were in these forces with about four million of them in the Army.

There were about 600,000 M1903 Springfield rifles on hand in April 1917, not enough to arm the gigantic force contemplated, and the Springfield Armory and the Rock Island Arsenal could not begin to meet the demand. American industry no doubt could have produced enough Springfields if they had had enough tooling time. But in 1917 little lead time was required for Remington, Eddystone, and Winchester to begin making Enfield rifles — their plants were already tooled and equipped for the manufacture of the P14. Therefore, the caliber of the P14 was changed to .30-06, the necessary minor adjustments were made, and a new rifle was born — the U.S. Rifle, Caliber .30, Model of 1917, or, as the soldiers called it, simply "the Enfield." ("Enfield" comes, of course, from the rifle's British heritage — many British weapons were made in Enfield, England.)

Since there were many thousands of Springfield rifles on hand (and Spring-

field production continued during the war adding more thousands), the War Department decided to issue Springfield rifles to Regular Army and National Guard units but Enfield rifles to the National Army. The latter consisted of some 17 divisions that had been created out of nothing after April 1917. Many (but not all) of the men who enlisted or were drafted after the outbreak of hostilities were assigned to National Army units.

During World War I, Remington produced 545,541 Enfields at its Illion works, Eddystone built 1,181,908, and Winchester made 465,980 more. During the height of its manufacture, M1917 output reached nearly 10,000 rifles a day. This compared with production rates for the M1903 Springfield of 1,200 a day at the Springfield Armory and 400 a day at the Rock Island Arsenal. In fact, the manufacture of M1917s actually exceeded the promised rate of production.

Enfields poured off of the production lines in such numbers that by 1 January 1918 there were enough in each National Army camp to equip every man authorized to carry a rifle. Because of the shortage of M1903 Springfields, four camps of National Guardsmen were not equipped with Springfields and presumably received Enfields instead.

With the coming of peace in November 1918, most of the M1917s went into storage as war reserve arms. The Army toyed briefly with the idea of adopting the M1917 as its official rifle, but this concept never got very far.

The cosmoline-coated Enfields reposed in storage for the next 20 years waiting for a new war and a new generation of soldiers to clean out the preservative grease and put them to deadly use again. But since the Army adopted the semi-automatic M1 in 1936, the M1917 was considered obsolescent by the time World War II started. Thus, it was relegated to training and state guard use during the war years. Some Enfields did see combat with the Philippine Army and other allied forces, but for the most part the sturdy old rifles contributed to victory as training devices instead of as weapons. After World



War II, thousands were sold by the Director of Civilian Marksmanship to National Rifle Association members.

My first affair with the M1917 was entirely too brief. After a few months I was drafted out of the Maryland State Guard and into the Active Army, and I had to turn in my beloved Enfield before leaving for active duty. Since I had drilled with my M1917 each week and had fired both ball and blank ammunition in it on several occasions, parting with this rifle was difficult.

After entering the Active Army, I had many opportunities to use the M1 Carbine, the M3 "greasegun," and the

legendary M1 rifle. Today, as a member of the Maryland National Guard, I qualify each year with the M16A1 rifle. All are good weapons and certainly of a more modern design than the M1917. But I never see an Enfield without slipping back in memory to the state guard and night maneuvers on the upper Potomac near White's Ferry (of Civil War fame) or hearing the ghostly crackle of musketry and smelling smokeless powder as we blazed away with our Enfields on the Fort Meade rifle range.

Other more modern and efficient military weapons have replaced this

now elderly World War I weapon. As far as I know none are left in the Army's inventory except a few specimens in post museums. As with all first loves, however, I'll never forget the M1917. To me, the sleek, graceful rifle will always be alluring and elegant.



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# Philosophy, Technology, and Tactics

CAPTAIN THOMAS P. KRATMAN

There seems to be a widely held belief in the U.S. Army today that "technology drives tactics and tactics drive technology" and that this has always been true. At its most extreme, this belief leads to an overly mechanistic, falsely scientific view of warfare in which the heaviest artillery is always seen as a sure winner. But history shows, I believe, that technology — instead of driving tactics — drives techniques and other technology. Indeed, any number of other factors may act singly or in combination to create or change tactics. A short explanation of tactical changes from pre-Biblical times to the recent past can demonstrate this point.

It is useful first, though, to define some of the key terms in this discussion. *Tactics* is the art (and sometimes science) of pitting strength against weakness. Much of what goes by the name of tactics in the U.S. Army (and others) should be called *techniques*

that support tactics. Thus, the way a machinegunner lays his gun along an FPL is a technique. But the way a platoon's weapons and fortifications are tied in to allow small arms to engage dismounted Infantry and separate it from armor (leaving the armor vulnerable to antitank weapons) is tactics. Similarly, camouflaging preparations for offensive action in one sector while drawing attention to another sector involves techniques if they are taken individually, but these things constitute tactics if they are taken together. Put more simply, techniques are a science and tactics an art.

*Technology*, as used here, refers to *new* technology, specifically to manufactured devices of recent invention. The difference is that centuries-old technological devices that have only recently found military application involve not science but wisdom, a new way of looking at things.

In the ancient world, swords,

spears, bows, arrows, slings, and suits of armor — all technological innovations in their times — were around for thousands of years without influencing tactics. The heroes of Homer's *Iliad*, armored like turtles in some cases, went forth to do battle without a thought for tactics. No different from neolithic village champions, these "high-tech" warriors of the past fought and either conquered or died singly.

Three successive ideas, however, were to have a decisive influence on warfare for some centuries. These were that men who were trained to march and fight in close order could form units of almost unbreakable density; that this would allow a frequent, organized relief-in-place of the rapidly fatigued front rank; and that men organized in such units and drawing physical and moral support from their fellows would willingly advance to close with and to physically and

morally overwhelm a foe who was not as well supported. These ideas formed the basis of the Greek phalanx, which included no new technology. Nevertheless, from Marathon to Utica, these ideas of discipline, order, and mass triumphed — often against a technologically equal or superior foe.

Technology did not drive the next significant tactical development either — the Theban (and later the Macedonian) phalanx. This phalanx employed the principle of mass, space, and time to group large forces at the point of decision while trading space and weaker forces for time until the main effort could be decisive.

Some might argue at this point that the 21-foot Macedonian *sarissa* was an example of tactics driving technology. It should be recalled, however, that this pike was at most a product improvement of existing technology and, more probably, only an adaptation of a *long*-existing technology to the new formation.

## MORALE

Before continuing to history's next major tactical advance, the essentially morale-based nature of ancient battles is worth considering. Few such battles were won by flanking or enveloping maneuver (Thermopylae, Cannae, Cynoscephalae). They were won, rather, through the physical attrition of one side or the other (Zama), or through the breaking of morale and the subsequent mass desertion of one side (Mantineia, Metaurus, Arbela, Issus, Marathon).

This desertion was a curious phenomenon. It did not take place at the front of the formation, because to turn was to die. It did not begin with the middle ranks; the soldiers could see the battle and were in any case prevented from running by the physical presence of the rear flanks. This desertion began with the rear ranks; these soldiers — out of danger but nearing it; unable to see the enemy or gauge the progress of the battle; hearing only screaming and the clashing of arms; seeing their own wounded and dead

but seldom any enemy casualties — would be morally overwhelmed. First singly, and later en masse, they would quit the field of battle.

The other weakness of phalangeal tactics was that all the tactical and morale value of fighting in close order supported by comrades could quickly be lost if, because of rough terrain or enemy action, the cohesiveness of a formation was lost.

It was to combat these effects that the Roman Legion was evolved. The Legion, employing only old technology, and much of it inferior, revolutionized warfare with ideas. (Torso armor and the short sword, for example, taken individually, were inferior to plate armor, mail, and long swords, but they were cheaper.)

The more obvious of these ideas was to retain the phalangeal principles of order and discipline but to break the formation into smaller units. These smaller units would have gaps between them to allow the units to move independently around minor obstacles without breaking up the formation itself.

The second idea was to group men by physical fitness or individual fighting ability and age or morale. Thus, the youngest, least experienced, most physically fit — but most likely to break — troops were put up in the first rank companies. Behind these units, called *Hastati*, were the next youngest, next most likely to break units, called *Princeps*. In the last rank were the oldest, least physically fit, but most reliable men, the *Triarii*. In this way, the strongest troops in each category, combat power and morale, were at the greatest point of danger for that category. After this, few Roman armies were ever broken by the enemy and fewer still by the terrain.

The most profound advances in military technology during this period of Roman ascendancy — the use of torsion-type artillery and elephants — actually had little effect on tactics. Indeed, a study of the use of elephants during this time shows that for all their apparent potential, they were singularly ineffective.

Throughout the Middle Ages, the

few tactical changes that came about did so because of the rediscovery of earlier tactics in combination with various social and political factors, not because of technological changes. The heavily armored horseman, the feudal knight, arose to preeminence without the benefit of technological innovations in the wake of the social, economic, and military collapse of the Roman Empire. His mail coat, shield, and sword were nothing new. The selective breed of bigger and bigger horses that could carry more and more armor was by then a long-established technique.

## MASS, ORDER, DISCIPLINE

And later, this knight and his tactics, such as they were, were not rendered obsolete by technology. What destroyed the feudal knight, literally and figuratively, was the rediscovery of the beneficial effects of mass, order, and discipline. This rediscovery came in the form of Swiss pikemen and German *landsknechts*, the Spanish *tercio*, and England's line of dismounted men-at-arms at Crecy. Moreover, this was done with the technology of 1200 B.C. and the philosophy of 400 B.C.

(I must confess that gunpowder made the feudal castle obsolete. But then, a castle whose usual occupants lay dead at Sempach, Agincourt, and similar places, was already somewhat obsolete.)

Looking at things objectively, an observer of the late Renaissance Period might have predicted that gunpowder would revolutionize the tactics of warfare. After all, it could hurl a missile that could kill at a range far beyond that of previous weapons. This observer would have been partially right — but mostly wrong. On the plus side, gunpowder did cause the art of fortifications to concentrate on lower, thicker walls to give protection. But that was engineering, not tactics. Gunpowder did make personal armor mainly obsolete. But that was the technology of ordnance, not tactics.

Gunpowder in muskets could kill



men at three to four times the range of a Roman legionnaire's *pilum*. Curiously, though, men continued to march in close order, as Roman legionnaires and Macedonian phalangites had, to fire on command, and to decide the issue physically and morally in close combat with the bayonet.

Napoleonic tactics were not driven by technology, for there were no significant technological advances in that era. Napoleonic tactics were driven by Napoleonic brains in combination with the great resources made available by a mass levy of troops.

### MAJOR LEAP

At the time of the American Civil War, a major technological leap was made in the form of the conical bullet in the muzzle-loading rifle. Yet, if the casualty figures of that conflict tell us anything, it is that the bullet did not change tactics much. Without belaboring the point, let us say that tactics did change some, because this muzzle-loaded conical bullet enabled rifles to be reloaded quickly and, with the greater accuracy inherent in a rifle, this improvement gave a preponderance of combat power to the defense. In other words, it created an imbalance. The failure by commanders on both sides to recognize this imbalance contributed greatly to its effects.

On the other hand, an argument could be made that this technological advance was not nearly as significant to tactics as leadership and geography were. In the Franco-Prussian War of 1870-71, for example, using weapons even more defensively powerful than the muzzle loaders of the American Civil War, the campaigns were fairly mobile. The differences in this case were the superior leadership of German arms and the geography, which favored offensive action.

In World War I the earlier imbalance came to full fruition on the static western front. Machineguns, trenches, barbed wire, artillery, and better defensive (wire-and-trench-protected messengers) than offensive

communications (unprotected messengers) combined to produce a deadlock that could be broken only with radical changes in technology and techniques. The whole perception that technology produced the static western front is quite misleading; on the eastern front in that same war, using the very same technology, a mobile campaign was fought. Why? Demographics and geography. On the western front, there were simply so many men committed on each side on so small a front that there were no weak points to exploit on either side. (If two mad kings in the Middle Ages had committed their entire armed forces to fight for a three-foot-wide bridge over an unfordable river, the result would have been the same — without any advanced technology.) On the eastern front, the reverse was true.

World War II may seem to be a case of technology driving tactics and vice versa. Indeed it is true that the technological factors that contributed to a deadlock on the western front in World War I had driven the development of a new, highly technological weapon — the tank. But this was merely a case of technology driving technology.

The tank, used in small numbers to support the infantry armies before 1940, was in itself insignificant. Only when tanks were used in combination with the infantry infiltration tactics the Germans developed late in World War I did they affect tactics significantly in Europe. And this is a case of tactics affecting tactics. Moreover, even in Western Europe, North Africa, and the wide open spaces of the Soviet Union, factors of geography and demographics could completely alter the nature of the fight. This is what happened at such places as Stalingrad and El Alamein, in Italy, and on the Cherbourg Peninsula.

For example, on the Cherbourg Peninsula following the Normandy invasion, the combination of geography and number of troops committed to the front negated all the supposedly overwhelming offensive power of the tanks. This combination produced,

for the time it took to tear the German Army to shreds and produce weak points to be exploited, a situation reminiscent of World War I, the American Civil War, or that mythical three-foot-wide bridge.

During the Korean War, insufficient troop density on the part of the United Nations allowed the North Koreans to produce a fluid situation in the first few months, and this proves my point again. As soon as the U.N. had a front no longer than it could defend, the war bogged down for a while into a World War I style contest. Somewhat farther north and later in time (in the CCF intervention) this cycle was repeated.

It is not my intention to suggest here that technology never drives tactics or vice versa. Rather it is to show that technology is merely one factor among many and, historically, one that has not been the most significant.

Instead of saying that technology drives tactics and vice versa, we should say that technology normally drives technology and tactics normally drives tactics. We should recognize that in cases where technology has driven tactics, it has been as a result of an imbalance — either in granting overwhelming advantage to the offense or the defense, or to one party to a conflict.

Finally, we should also recognize that where technology has driven tactics, it has not done so in a vacuum. Factors such as leadership, geography, demography, and philosophy, among others, have had far more significant effects.

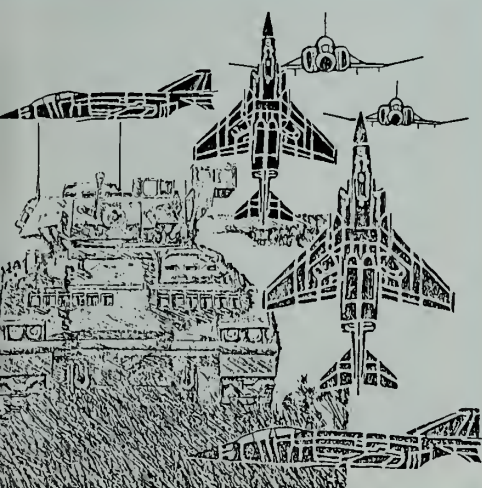
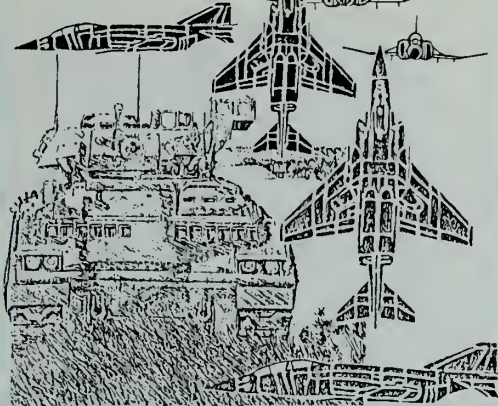
The implication of all this for the U.S. Army is that perhaps our enthusiasm for technology is misguided. A more balanced view, one in which technology is only one of a number of factors affecting combat, would enable us to do a better job of carrying out our mission.

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LIEUTENANT COLONEL RON OFFLEY  
UNITED STATES AIR FORCE



# Close Air Support For The AirLand Battle



Lately, many reports, papers, and studies have been presented on the AirLand battle as our military services attempt to nail down just how concepts such as deep attack, joint suppression of enemy air defenses (J-SEAD), joint air attack teams (JAAT), close air support (CAS), and combined arms warfare can be successfully implemented on future battlefields.

At the U.S. Army Infantry School, many questions are asked about Air Force support. To help dispel some misconceptions, this article will pose and discuss a few of

the more common questions that have been asked at the lower Army echelons during the development and refinement of one aspect of the AirLand battle — close air support, or fixed wing firepower on the friendly side of the fire support coordination line.

Although there are no clear-cut answers for most of these questions, a short discussion of each may be able to point out the factors the U.S. Air Force has to consider when deciding on who will be supported, and when, and with how much.



## **Will close air support be available on the first day of any future conflict?**

In a September 1984 article, Assistant Secretary of the Air Force Tidal W. McCoy established the Air Force's mission priorities this way: "Air superiority is the first mission, because we believe that without control of the air, neither we (the Air Force) nor the ground forces can succeed. In effect, we now must perform counter air, air superiority, deep interdiction, and battlefield interdiction at the same time. Thus, we are structuring our forces accordingly. We have not, however, elected to pursue air superiority at the expense of all others. The A-10s, A-7s, F-4s, and F-16s in their air-to-ground modes are very capable CAS aircraft."

To phrase the answer in more operational terms, an anonymous fighter pilot put it this way: "You can shoot down all the Migs you want; however, when you return to base, if the lead tank commander of an advancing enemy motorized rifle division is eating lunch in your squadron snack bar, Jack, you just lost the war!"

The percentage of the total theater air effort that is dedicated to CAS is determined daily at the highest echelons of the theater's command. The Air Force has airplanes and crews whose *only* mission is ground attack, and if you need CAS and request it, it will be there.

## **Will the Army get control of the A-10 in wartime?**

This rumor is without basis. The A-10 (with its 30mm gun) is designed for the close air support mission. It is centrally controlled from the theater's Air Force headquarters for its mission assignments. This central control allows the A-10 (and other CAS aircraft) to respond nearly anywhere along the front lines. During wartime, army and corps commanders will receive daily planning guidance for CAS requests, for both preplanned and immediate (on-call) missions. In certain situations the A-10 may operate from forward operating locations (small airfields) to respond more rapidly to specific engagement areas. In a temporary battle situation they may be under the scramble authority of the ASOC (Air Support Operations Center), which is the Air Force's command post at corps level.

Air Force aircraft are never placed under the Army's operational control. They respond to Army CAS requests, are centrally controlled at high-level Air Force commands, and execute their CAS missions with the aid of the air liaison officers (ALOs), forward air controllers (FACs), and tactical air control specialists (TACSSs) assigned to army brigades and battalions.

## **How many CAS sorties can a battalion expect?**

This question is difficult to answer. First of all, has the battalion requested preplanned CAS and integrated it into its fire support plan? Just like any higher headquarters asset, fire support is not given unless it is requested. Because of the way air assets are centrally controlled, only corps or divisions are normally given planning guidance as to the number of daily sorties to expect,

although guidance may be further passed down to brigade or battalion by division headquarters.

To answer the original question, then, it depends on many factors. What's the scenario? Is it day or night? What's the weather? What's the threat? In the thick of fighting, a battalion may receive many sorties, or if it is holding and is not threatened, it may receive none.

## **Is it difficult for fighter-bombers to spot CAS targets?**

Compared to the relatively short range of land-based direct fire weapons, CAS aircraft have a large operating area. Fighter-bombers have an operating radius of about 250 nautical miles or more without air-to-air refueling. Our navigation can be accomplished visually on 1:500,000 and 1:250,000 scale charts, by radar returns of prominent terrain features, with land-based radar or radio navigation beacons, and by internal navigational instruments. These navigational aids can direct a pilot to a target area but cannot locate the individual targets.

Because of our vast operating area, 1:25,000 or 1:50,000 scale maps are usually impractical to use, thereby precluding use of the UTM (universal transverse mercator) coordinate system. In most cases, a common land reference point must be found to positively identify both the friendly and the target positions. To do this, the pilot uses a combination of a FAC's verbal description, smoke marks, and laser designation. At the high speeds that our fighters fly, distinguishing smaller targets is very difficult, especially if those targets have made an attempt at concealment.

## **Why can't aircraft hit a target without radio contact?**

Before we can drop air-delivered ordnance we must know at least where the friendlies are and where the target is, and we must have clearance to drop. Without radio contact the forward air controller cannot communicate the required minimum information and be confident that the pilot will receive and understand it. This lengthy communication includes start point, heading and distance to target, target area description, friendly position, abort codes, ADA positions, and other remarks.

The Air Force may use non-jammable radios and can use procedures in which a fighter receives the target briefing through a radio relay; that is, the briefing is relayed to a rear area command post or a forward air coordinator (airborne), who in turn relays the mission briefing to the fighter in an area away from the threat of jamming. The forward FAC then needs only minimal radio contact to put ordnance on the target. (The U.S. Air Force Air Ground Operations School teaches that CAS cannot be accomplished without at least minimal radio contact with the pilot.)

## **What about CAS for a land force's deep attack or for special raids?**

CAS airplanes can go anywhere a land force goes. The support air forces may operate a little differently passing over enemy territory and will probably use their own weapons for suppression of enemy air defenses (SEAD).



The A-10 (with its 30mm gun) is designed for the close air support mission.

Generally, if there is little support available for Army SEAD, the Air Force will plan mission packages both to attack the target and to protect the CAS aircraft in transit and in the target area. These packages may include CAS attack aircraft, radar suppression aircraft (wild weasels), air-to-air fighters, jamming assets, airborne radars, and the like. The CAS procedures are in effect any time ordnance is expended near friendly forces — no matter where those forces are in relation to the FLOT (forward line of own troops). The CAS sorties can be either preplanned or immediate (on-call), depending on the situation.

#### **How responsive is immediate CAS?**

One should think of CAS as belonging with the larger, more destructive ordnance that is available to land forces. Generally, the larger the ordnance, the harder it is to get and the longer it takes to get it. Mortars are more responsive than 155mm artillery, which, in turn, is more responsive than 8-inch guns, which are more responsive than CAS.

CAS attack airplanes can respond anywhere on the battle front. The immediate CAS request is called to battalion and radioed directly to corps (or the highest operational headquarters) by high frequency (HF) single sideband radios operated by tactical air control parties (TACPs). The transmitted information includes unit identification, target location and description, and requested time on target.

The headquarters (Army) approves or disapproves the request, and the Air Force must find aircraft and ordnance that are compatible with the target. These may be diverted from another mission, launched from airborne or ground alert, or be available because of poor weather or other CAS cancellations. The CAS aircraft must take off, travel to the target area, and receive the target briefing. Delays may be caused by long communication links, searching for available and compatible ordnance

loads, and travel time to the target area. The time from the request to bombs on target may be from ten minutes to one and a half hours, depending on the situation. Generally, the more specific the requested firepower, the longer the time between request and result.

#### **Why does the Air Force prefer preplanned CAS to immediate CAS?**

Preplanned CAS is requested today for tomorrow's missions. It therefore allows more effective planning since the pilots have time to study the target area and analyze the threat. The Army's ground liaison officer (GLO) stationed at the fighter base can brief the pilots on any special aspects of the Army's CAS request. Aircraft maintenance and munition maintenance personnel can plan aircraft and ordnance to make the best use of the air wing's flying sorties. Although it is difficult to plan ahead in the defense, preplanned CAS can definitely be a part of the fire support plan in the offense.

#### **Why can't the Army's company commanders control close air support?**

In the years since World War II, the Air Force has developed a system for requesting and controlling CAS that has worked well. CAS is important enough that the Air Force supplies FACs, ALOs, and TACs to the Army's battalions and higher levels of command. These personnel are charged with advising the Army commanders and their staffs on the capabilities and the use of the theater Air Force, including all aspects of CAS.

We realize that the FAC cannot be everywhere on the battlefield, so in emergency situations the Air Force's enlisted tactical air command and control specialist can control the aircraft. In Grenada, the final control of some CAS (friendly location, enemy location, and clearance to drop) was accomplished by these specialists.

Additionally, fire support officers, as well as Army personnel who attend the Joint Firepower Control Course



at Hurlburt Field, Florida, are oriented in the emergency control of CAS. That is, they know CAS procedures but have not practiced with any attack airplanes. With more airplanes having frequency modulation (FM) capabilities (F-16, A-7, A-10), the Army is better able to talk directly to CAS aircraft.

Company commanders are normally neither trained nor authorized to control CAS. It would be a unique situation in which they would effect final control of a CAS mission. Although the procedures are not difficult, they are quite different from a normal call for fire. The units' FACs or ALOs are tasked with instructing in all aspects of CAS use and procedures.

#### **Do CAS pilots worry about weapons status or friendly artillery?**

Absolutely! The CAS pilots depend on the forward air controller to avoid heavy artillery concentrations. We would prefer not to shut down artillery (check fire) so, normally, local no-fire areas are coordinated for the duration of an air strike. The procedural control (tight, hold, free) of battalion air defense artillery (ADA) units is usually assigned by the division airspace management element (DAME). The weapons status depends on what the air space is used for. Thus, a typical example would be the establishment of a safe air corridor to be used by friendly aircraft for crossing the FLOT. Confusion at lower Army echelons may arise when friendly interdiction and reconnaissance airplanes cross the FLOT, since the Army will not normally be informed of these missions.

Obviously, our pilots are concerned about the safety of established air corridors and exactly whose ADA we should worry about. The deep attack aircraft will generally fly over the FLOT very low and very fast or will pick less hazardous crossing points. CAS aircraft will orbit behind friendly lines, then move forward to attack. In many cases, the pilot will never see the gunfire directed at him, because of his large workload and the speed of his aircraft. If the ADA is a factor in the attack of a target, we are normally authorized to attack enemy ADA.

#### **What about enemy ADA in a CAS situation?**

The joint suppression of enemy air defenses is initiated both at high levels of command as a long-range campaign and at low levels with local SEAD plans established at battalion level. Normally, the fire support element (FSE) will coordinate SEAD to protect both Army helicopters and CAS aircraft. They will plan attacks on local enemy ADA just before the arrival of friendly air support. The Army is responsible for SEAD out to the limits of observed fire, which means that some of the friendly artillery should be planned for SEAD missions to protect all air operations.

#### **Can we expect CAS at night or in bad weather?**

CAS airplanes visually attack point or area targets, and the sighting or guidance mechanisms are normally visually directed. To strafe or deliver unguided bombs, for

example, a pilot must visually acquire the target. Daylight CAS operations are the norm, and flare or infrared night operations are limited. Weather with a ceiling of less than 1,000 feet and a visibility of less than two miles limits fighter operations to area targets.

The CAS weapon systems cannot attack point, hard targets without visual acquisition. Bombing through the clouds relies on aircraft radar acquisition, beacon bombing, or ground controlled radar directions and normally results in the delivery of general purpose bombs on an area target that is a safe distance from any friendly forces. Some specially equipped aircraft have infrared seekers and laser target designators for night laser guided bombs. Also an infrared antitank missile is programmed for the inventory which will improve the night CAS capability. The Air Force is testing a low altitude navigation, targeting for night (LANTIRN) system for the A-10 and the F-16. This system should greatly improve the Air Force's night and poor weather target acquisition capability.

In short, CAS at night and in bad weather is limited today but should improve in the near future.

#### **What are the best targets for CAS?**

Concentrated groups of light armor, supplies, fuel, ammunition, or troops are excellent for general purpose ordnance. Hard mobile targets such as tanks can be good targets, too, provided our ordnance is compatible. Dispersed targets are difficult to find and are likely to waste ordnance. CAS is very flexible as to where it can attack and in what direction. For example, reverse slope attacks are relatively easy to accomplish.

We avoid concentrations of enemy ADA whenever possible both during attacks and while flying to and from target areas. When no SEAD support is available and a target warrants the risk — in support of an air mobile raid, for instance, or a joint air attack team mission beyond the limits of Army observed fire — CAS aircraft can assume the SEAD mission. We prefer not to be responsible for SEAD in a CAS environment because it decreases the ordnance load we can use against offensive enemy weapons.

#### **What is battlefield air interdiction (BAI)?**

Battlefield air interdiction is a preplanned attack by Air Force interdiction assets on targets nominated by the Army. BAI was developed in Europe and is a common mission for NATO forces.

Basically, BAI targets are those that may have a near-term effect on friendly forces — such targets as the second echelon division (and higher) targets of armor, troops, and vehicles. BAI sorties are integrated into the theater interdiction effort and are flown by Air Force aircraft using Air Force tactics.

A BAI attack can be planned to divert, disrupt, delay, or destroy BAI targets. For example, to interdict a second echelon division, attacks can be made on their command posts, enroute bridges, fuel dumps, assembly areas, and

massed armor formations, with each attack timed to produce the most advantageous result.

Extensive target planning is done by high level Army and Air Force planners, and excellent intelligence is required to identify the BAI targets. A pressing demand for the enemy assets to be moved forward facilitates an effective interdiction effort.

### **What about attacking enemy helicopters with CAS aircraft?**

If the ground forces have no other options, certainly the Air Force will attack enemy helicopters. Tests have shown, however, that fast-moving aircraft have only limited success in attacking low-flying helicopters. Some multi-mission aircraft have guns and heat-seeking missiles that can be used to engage helicopters, but the counter-helicopter mission is not our primary one.

With the ever-increasing attack helicopter threat, each battalion must analyze the enemy threat and effectively deploy and use its friendly ADA. The chances are slim that CAS airplanes will be at the right place and time to counter specific enemy air threats.

### **What is the danger-close distance for air-delivered weapons?**

While the Air Force doesn't use the term "danger close," a good rule of thumb for reasonably safe distances is about 1,000 meters in unprotected positions and 200 meters when protected. Depending on how controllable the ordnance is, these distances may vary. Strafing, for example, can be controlled down to 25 meters, as long as the friendly troops are not in the line of fire, but an area weapon such as cluster bomb units (CBUs) requires a minimum safe distance of 500 meters in protected positions.

The FAC is responsible for the safety of the ground troops during CAS missions, although his recommendations can be overruled by the ground commander.

### **What is so special about using a smoke grenade to mark positions for attack aircraft?**

The omnipresent smoke grenade is the most commonly used overt friendly mark. Again, in reference to identifying the target and friendly positions, the hardest task in the CAS mission is establishing a common reference point on the ground that is recognized by both the pilot and the ground personnel. The smoke grenade is easy to use, readily available, and easy to see from the air.

There are other marks that can be used — flares, ground panels, or mirror flashes to identify friendly positions, and artillery smoke marks, tracers, or laser designators to identify target positions — so it is up to the ground personnel to brief the FAC when a smoke grenade or other overt mark may not be advisable.

### **What's a JAAT?**

A joint air attack team (JAAT) is a combination of

U.S. Army attack and scout helicopters and U.S. Air Force close air support aircraft operating together to attack lucrative high priority targets. Employment tests have shown that the combined effects of these aircraft produce exceptionally good results. This joint attack supports the ground commander's scheme of maneuver and includes coordination of fire with the fire support officers. It can be requested through normal CAS procedures when attack helicopters are available.

### **How is CAS accomplished in an area where there is a high enemy ADA threat?**

High-threat CAS tactics usually rely on the use of a known geographic point called an initial point (IP) from which an attack is started. The heading and distance from the IP to the target is relayed to the attack airplane. The aircraft flies low and fast toward the target and, at two to four miles from it, starts a climb to acquire the target and establish a dive angle for weapons release.

The target must be marked or the pilot must have a detailed word description of it to facilitate target acquisition. The CAS aircraft should attack on its first pass and will probably expend most of its ordnance on that pass, especially if the enemy ADA is concentrated. Re-attacks may be acceptable if the ADA is not heavy or if it is suppressed.

These tactics are a compromise that gives the aircraft a minimum time of exposure to ADA, a reasonable chance of hitting the target, and a reasonable chance of surviving. This method of attack is not unique to high threat CAS; most interdiction sorties are flown using similar tactics.

The preceding questions cover many aspects of close air support. With more emphasis today in the Army on light divisions and air deployable assets, a large part of the heavy firepower will be accomplished by CAS. A unit TACP's job is not only to advise the commander and his staff on CAS but also to educate the unit's officers and NCOs. This education is strictly voluntary, since there are no battalion training management system (BTMS) requirements for CAS.

As its name implies, though, close air support occurs in an area that should be considered a ground commander's front yard. To make it work effectively and accomplish his objective, the ground commander must understand how the system works — from request to ordnance expenditure. His TACP can make the system work for him, helping to insure successful operations for his unit and, ultimately, *our* total combat effort.

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# DISMOUNTED *Night Attack*

LIEUTENANT COLONEL WILLIAM A. DePALO, JR.

With the Army's emphasis in recent years on mounted tactical operations, a dismounted night attack seems to have become a job for special operations forces, not for mechanized infantry. As an integral part of the combined arms team, however, mechanized infantry units, through well planned, vigorously executed, dismounted night attacks, can significantly improve the chances for success of mounted operations.

Night gives a dismounted infantryman a singular advantage over his mounted adversary: Through stealth, he can move over virtually any kind of terrain, maneuver around choke points, and, in many instances, walk onto an objective undiscovered and therefore unopposed. To exploit this advantage, though, the infantryman must be thoroughly prepared to operate at night, and this is the key element in conducting successful night attacks.

The preparation for a dismounted night attack begins



with a mission analysis and a detailed reconnaissance of the area of operations as a prelude to the development of a tactical plan. The plan itself must be simple and it must spell out the measures needed to insure proper command and control of the participating units.

Once the plan has been developed, it should be rehearsed as often as time will permit. The soldiers must know and fully understand their roles so that the operation can proceed on its own momentum once the units cross the line of departure. Accordingly, commanders must adhere stringently to the established troop leading procedures, especially the one-third/two-thirds rule.

A dismounted night attack by mechanized infantry units — particularly those equipped with M113s — presents certain considerations that are not generally issues with light infantry forces. For example, the mechanized infantry commander must consider the strength of his force, because if he leaves his carriers behind with their drivers and track commanders, his strength is reduced by nearly one-third. If he takes these personnel along, he must have a solid plan for returning them to the vehicle laager site as soon as the objective has been consolidated. Either way, there are trade-offs a commander must weigh against the factors of METT before he makes a decision.

The commander must also decide what heavy weapons the attacking echelon will take with it. Although it may be advantageous to have TOWs immediately available for long-range antiarmor support, the components of the dismounted system and the missiles are heavy, and it takes two

TOW squads to carry one system. This same problem applies to a battalion's 107mm mortars; true, these can be back-packed, but the weight is enormous and the soldiers who are designated to carry the components will find it hard to keep up with the dismounted infantry element.

In addition, mechanized infantrymen have to be as physically fit as their light infantry counterparts for whom forced marches are a way of life. Unfortunately, though, some mechanized forces today tend to disregard the kind of sustained vigorous conditioning program necessary to get their soldiers in shape to execute arduous dismounted operations successfully.

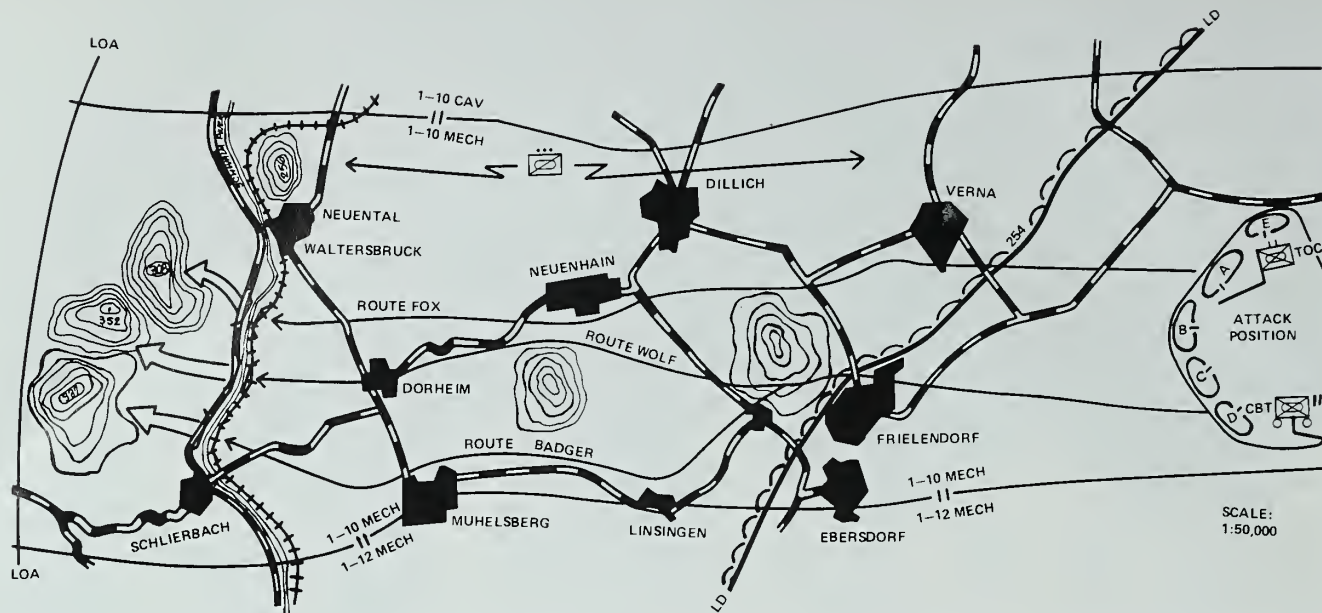
Finally, command and control at battalion level presents a special problem in that the battalion's tactical command post is not configured to accommodate dismounted operations without some sort of augmentation.

None of these considerations pose insurmountable obstacles, but they are factors unique to mechanized forces that must be assessed during the decision-making process.

The discussion that follows illustrates the value of a dismounted night attack as a means of keeping an opponent off-balance and adding a complimenting dimension to mounted offensive operations.

During the maneuver phase of REFORGER 85, the 4th Infantry Division (Mechanized) was given an initial mission of penetrating the enemy's covering force, securing crossing sites over the Schwalm River, and continuing the attack into the main battle area. To accomplish this mission, the division commander chose to conduct dismounted night attacks





with three infantry-pure battalions to secure the high ground overlooking the designated crossing sites, and to follow these at first light with three armored task forces. The infantry mission was complicated by the requirement for the three battalions to march up to 14 miles and to cross an unfordable river before they could seize and secure the decisive terrain that dominated the crossing sites. The activities of one of these three infantry battalions will illustrate how this mission was accomplished.

Preparation and rehearsal were the keys to the battalion's success in this endeavor. Preparation began with an extensive reconnaissance of the approaches, the river, and the crossing sites. An analysis of this information led to the development of a tentative tactical plan that was refined through battle simulations and sand table exercises. Simultaneously, the battalion intensified its night training, conducted rehearsals at its home station, and augmented its physical training program with forced marches of up to 10 miles with full field gear. All attachments participated.

The scheme of maneuver for this operation called for the employment of three rifle companies (the fourth had been detached for another mission) along three separate directions of attack, each of which extended from the line of departure to the objective (see accompanying map). Cross-country movement was to be exploited to the greatest possible extent to avoid contact and to reach the objective with the least delay. Check points and phase lines were used to control this movement as well as to gauge the progress of the attack.

All vehicles were left behind in the attack position, and their drivers and commanders participated in the attack with their respective platoons. The entire antitank company (20 TOW systems) also remained in the attack position with instructions to move rapidly on order to pre-designated battle positions where it could place overwatching antitank fires along likely armor avenues of approach.

The mortar platoon was situated near the line of depar-

ture and was to provide on-call indirect fire support; it was also to displace to subsequent positions on order. The scout platoon screened the battalion's right flank with dismounted elements that were actually in position before hostilities began. Scout drivers and track commanders remained with their vehicles so that they could link up rapidly with the dismounted scout elements and move to forward screening positions once the objective had been secured. Attached engineer squads and Redeye teams accompanied each of the rifle companies to support the river crossing and provide first-light air defense.

The unfordable river ran parallel to the objective and about 1,000 meters from it. The battalion's plan called for the attacking units to use rope bridges and three-man inflatable rubber boats (easily carried) to get across the river. All three companies were to halt at a pre-designated phase line near the river, inflate their boats, and begin the crossing simultaneously.

Once the far bank was secured, the companies were to work their way to their objectives by using infiltration tactics, destroy any opposition, consolidate their positions, and prepare to meet counterattacks. The company on the left flank had an on-order mission to reconnoiter the bridge at Schlierbach and seize it if it was intact and weakly defended. The command group, also dismounted, was to follow the left flank company and monitor the progress of the attack through reports of phase line crossings.

When its preparations were complete, the companies moved out of the battalion attack position just after midnight and crossed the line of departure along the three specified directions of attack. As a result of its detailed reconnaissance effort, its intensive intelligence gathering work, and its thorough terrain analysis, the battalion had a reasonably accurate picture of the disposition of the enemy's covering force elements. Therefore, the company commanders adjusted their routes to bypass those points where enemy concentrations were expected.

The attack proceeded on schedule all the way to the river, with a single brief interruption when an enemy machinegun opened fire on the right flank company. After a grueling 13-mile march through foot-deep snow, with each soldier carrying a 60-pound rucksack, the three companies reached their crossing site within 15 minutes of each other. To afford the best surprise and protection, the crossing sites had been selected specifically at points where no roads existed. The boats were inflated and moved to the river, and the soldiers began the crossing in groups of three at approximately 0530. Thirty minutes later, all elements had crossed undetected and regrouped to begin infiltrating the objective.

At this point in the operation, a fortuitous circumstance occurred: The reconnaissance element from the left flank company discovered that the Schlierbach bridge was intact and only lightly defended. Since possession of this bridge would expedite the passage of the follow-on armor units and complicate the enemy's withdrawal of his bypassed covering force elements, the company was ordered to seize it. Attacking both ends simultaneously, the company quickly overwhelmed the defenders and took control of the bridge. Leaving one platoon and its attached engineers to protect the bridge, the company resumed its advance toward its objective.

The battalion had divided its objective, which was the decisive terrain dominating the approaches to the river, into three smaller company objectives. The companies moved quickly toward their objectives, using great stealth and no preparatory fire. All three attacking elements succeeded in infiltrating their objectives and completely surprising the defenders. They then conducted sweeps to clear their objectives to the limit of advance, and each company established contact with the unit on its flank. By 0730 the battalion objective was declared secure and the follow-on armor task force had a clear path across the Schwalm River.

Because the division commander's intent was to get his armor across the river rapidly, the battalion's link-up with its carriers was delayed until the entire armor task force had passed through the battalion's position. Carrier link-up was then accomplished later in the day by trucking the drivers and track commanders back to the attack position and moving the carriers forward under the control of the company executive officers to pre-designated link-up points. By 1400 the entire battalion had been reassembled and was ready to continue the attack.

The night attack had been an unqualified success — it had unhinged the opponent's defense, forced the enemy to make a premature commitment of his reserves, and obstructed the withdrawal of the enemy covering force into its main battle area position. The armor units were able to penetrate deep into the enemy's rear areas and disrupt his entire defensive plan. By day's end, the division's lead

elements had reached a point some 30 kilometers from their line of departure and had sustained comparatively few losses in the process.

Several significant observations can be made as a result of this successful operation. First, night is the ally of the infantryman and negates many of the advantages enjoyed by a defender who occupies good defensive terrain and has sophisticated optics and weapon systems. Second, despite its limited dismounted strength, a properly organized and trained mechanized infantry battalion can use a night attack to accomplish at small cost what would probably be a very expensive endeavor during broad daylight. Finally, some risks must be accepted if such an operation is to be conducted with speed and stealth. Specifically, dismounted elements must rely upon medium-range Dragon antiarmor fires until the TOW systems of the antitank company can be brought forward, and infantrymen must be able to repel counterattacks without their normal caliber .50 machinegun support and rapid maneuver capability until a carrier link-up can be achieved. In this particular instance, however, the surprise and momentum achieved by the dismounted night attack reduced these risks to acceptable proportions.

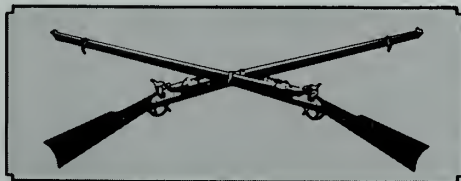
The unsupported, nonilluminated, dismounted night attack remains a highly effective and desirable part of our offensive doctrine. To succeed, the tactical plan must be simple, thoroughly rehearsed, and vigorously executed. Detailed reconnaissance is absolutely indispensable in formulating and executing the plan; without it, the risks inherent in a night attack are magnified considerably.

Field Marshal Erwin Rommel's observations on this subject in *Attacks* lend additional credence to this precept: "While the exhausted troops rested, the officers were untiringly active in determining precise information regarding the enemy and the terrain. Even after midnight they continued reconnoitering.....Thus they created the basis for the successful penetration...."

There is no reason, therefore, to believe that only special operations forces can conduct dismounted night attacks. The mechanized infantryman, if he is well prepared to do so, can also use his position in the combined arms team to conduct successful night attacks.



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# ECHO ON THE BATTLEFIELD

CAPTAIN GEORGE E. KNAPP

The key to successfully employing the new antiarmor company — Company E, or Echo Company — of the J-Series mechanized infantry battalion is the attitude of the chain of command. First, leaders should stop thinking of the antiarmor platoons and sections of Echo Company exclusively as “add-ons” to the other companies (or teams) of the battalions (or task forces). Echo Company can be trained and employed as a unit and can give a task force commander one more option in planning and executing combat operations. Leaders should exploit the lack of published doctrine on the employment of the antiarmor company and aggressively develop their Echo Companies into the powerful battlefield forces that they can be. (*EDITOR’S NOTE: See also “Echo Company: The Fifth Player,” by Captain Michael S. Hackney, INFANTRY, July-August 1985.*)

Echo Company is maneuvered by the Echo Company commander, and he has a tough job. He must provide continuous antiarmor coverage throughout the task force’s zone of advance or sector of defense. To do this, he maneuvers his platoons forward or to a flank or to the rear, always keying on the principle of retaining his flexibility to displace quickly and mass his antiarmor fires. Ultimately, massing his antiarmor fire will be the key to his success.

Consider, for example, the attack of a company-sized enemy force employing BMPs and tanks. A single ITV section facing this force is like a lone wolf stalking a

moose: The section can harass and damage the enemy company but is not likely to stop it. Add another ITV section and a platoon command and control vehicle, though, and the tactical advantage begins to shift in favor of the wolves. Add a third ITV section (the optional three-section ITV platoon found in some battalions that have not made the transition to the Bradley Fighting Vehicle), and the once dangerous situation becomes an opportunity to exploit success. It is the existence of platoon-level command and control that makes this employment technique possible. And always hovering about orchestrating the whole maneuver is the Echo Company commander.

The Echo Company commander is also a special staff officer — the task force commander’s antiarmor advisor — and he takes part in the staff planning process with the S-3. He develops antiarmor courses of action to support each course of action developed by the task force staff; he provides input concerning the indirect fire plan, the obstacle plan, the scheme of maneuver, and direct fire control measures; and he makes recommendations concerning the detachment of portions of his company, if any, as well as the attachment of task force assets to Echo Company.

There is no doctrinal reason why Echo Company cannot be used as a team consisting of one or more antiarmor, mechanized infantry, armor, engineer, or other maneuver platoons. Too often, unfortunately,

Echo Company's platoons and sections are automatically farmed out leaving a company commander with nothing to command, a company executive officer with nothing to maintain, and a company first sergeant with nothing to feed, fuel, or reload.

Command and control within Echo Company is not unlike that in the other companies in a battalion task force. In fact, with a little work, the antiarmor company can be the best shooter, mover, and communicator in that task force. The company commander can talk to the task force commander, other leaders in the task force, his executive officer, and his platoon leaders. His platoon leaders can talk to him, the company executive officer, each other, and their subordinate sections.

The TOE configuration of two AN/VRC-46 radios in the command and control M113s supports this communication capability quite well. But the addition of one auxiliary receiver to each vehicle, turning one of those VRC-46s into a VRC-47, really improves a platoon leader's ability to respond to the antiarmor needs of the task force. Thus, when he is attached to other task force assets, a platoon leader can still monitor his parent company's net to receive up-to-date antiarmor information about the battlefield. And if Echo Company is operating in general support of the task force, a platoon leader can monitor the command net of the company or team in whose area he is working so that the support he renders is more appropriate and more in line with what that commander wants.

Battalions that have not changed over to the Bradley Fighting Vehicle and that still retain two ITVs in their line companies should go ahead and move these sections into Echo Company for several reasons. Although a single ITV section is powerful, it is unlikely to meet anything on the modern battlefield that it can overcome by itself. One ITV section, for instance, can seldom overwatch the maneuver of an entire company or team. In addition, line company ITV sections can operate only on their company's nets unless they somehow rig up an AN/PRC-77 radio in the section leader's track. And if one ITV in the section is out of action for any reason, the company's long-range antiarmor fires are reduced by half. Finally, line company commanders generally do not train their ITV sections well — the sections are usually either left on their own or used as aggressors in training.

Certainly there are exceptions to this and, oddly enough, some of the best ITV section leaders come from line companies. Once consolidated with the antiarmor platoons of Echo Company, however, the ITV sections become elements of a powerful battlefield force and can be trained and maintained with their own kind. The antiarmor platoon leader can plan and execute tactics that are familiar to all triangular combat units.

In employing this technique, of course, a valid concern is the increase in the number of radios needed within the antiarmor platoon, and one of the most challenging tasks for a platoon leader is maintaining strict radio communication discipline.

Antiarmor platoon leaders and platoon sergeants should be selected from the best soldiers available in the battalion, and being chosen to lead these platoons should be considered both a reward and a challenge. ITV platoons are, after all, special platoons. They are powerful forces that can be deployed over large areas. They often are required to act semi-independently. They can number up to seven vehicles — if the three-section platoon is employed — and they have some similarity to scout and cavalry platoons.

Recently, there has been some debate — and at least one full field study — on the subject of where the antiarmor platoon leader and platoon sergeant should ride. There does not have to be a doctrinal answer to this question; there really is only one good answer: Platoon leaders and platoon sergeants should ride wherever they need to ride in order to control their platoons. The truth is that no matter how much you jazz up an ITV, it is still a poor command and control vehicle. To displace a section leader or squad leader so that a platoon leader or platoon sergeant can better "see the battlefield" is, at best, only an option.

Admittedly, having these two leaders ride together in the same M113 can be tactically dangerous. But it is better to do that than to have one of the ITVs in each platoon dilute its potential armor-defeating power. What the platoon really needs is a TOE authorization for a radio-telephone operator (RTO) to ride in the M113. In the absence of this authorization, smart platoon leaders are presently getting this RTO by taking a good man from one of the sections.

## TACTICS

Echo Company's primary role during movement is to provide overwatch for a task force's maneuver companies. Depending on the commander's scheme of maneuver, the company can be dispersed throughout the task force formation, can have a majority of the company well forward overwatching the lead companies or teams, or can be used to help with flank and rear security. When enemy contact is not likely, the company should keep two platoons moving. If the zone is so wide that two platoons must be employed in the overwatch, then those platoons should keep one or two sections moving. The antiarmor company keys on anticipation and position selection and must be prepared to mass its fires. The ITVs will be left behind even by M113s if the company commander and the platoon leaders are not anticipating and aggressively positioning the overwatch sections. (There is a parallel between the way antiarmor leaders must anticipate, plan, and move and the way mortarmen and artillerymen do the same to provide coverage for the maneuver elements.)

In the offense, Echo Company moves by bounds within the task force's zone and provides continuous, overwatching antiarmor fires for the forward maneuvering teams. When enemy contact is likely, up to two-thirds of



the company should be in overwatch, although the Echo Company commander should keep one platoon moving and ready for any eventuality. Once contact is made, the antiarmor platoons establish a base of overwatching fire and begin destroying and suppressing the enemy. Platoons not in contact are not automatically committed to that contact.

It is important that Echo Company retain its freedom to maneuver if it is going to support the entire task force and also deal with the enemy's follow-on forces. Platoons in contact help fix an enemy force so that it can be destroyed or suppressed and bypassed. This must be done quickly so that the task force can maintain its own freedom to maneuver.

Echo Company's semi-independence plays an important part in making this work. For example, the antiarmor company commander may recommend attaching his platoon that is in contact directly to the task force maneuver team that is also in contact. (At times like this, the communication ability of the antiarmor platoon takes on a critical importance.) The techniques of detaching and re-attaching antiarmor platoons, in fact, can become part of a task force's maneuver SOP. It takes a lot of practice, and it suggests a habitual relationship between antiarmor platoons and companies or teams. Once developed, though, these techniques give a task force the flexibility it needs to deal quickly with the fluid nature of a modern battlefield.

In the hasty attack, antiarmor platoons are positioned to provide continuous, overwatching fires and are prepared to provide flank security along a task force's boundaries. This base of fire is not static. It moves, re-orient, and shifts fires as needed. It displaces rapidly to consolidate and provide overwatch for subsequent task force moves and to defeat enemy counterattacks.

In the deliberate attack, the antiarmor platoons are positioned to provide overwatching fires onto and beyond the objective. Fire planning and distribution are more precise. Subsequent bounds are more clearly identified and sequencing is determined. Again, flank security for the task force can be an antiarmor platoon's mission. Once the attack begins, the Echo Company commander must be ready to move his platoons by bounds onto and beyond the objective to maintain the attack's momentum and to defeat any enemy counterattacks.

In exploitation and pursuit operations, the security of the antiarmor platoons is a particular concern. Still, the ITV can be a devastating weapon at great ranges against enemy rear area targets. Antiarmor platoons can also be used to secure lines of communication or to provide early warning along exposed flanks.

The German Army repeatedly used this flank security and early warning tactic with success in World War II. The technique, called the "pak-front," normally employed the long-range 88mm weapon in a direct-fire antitank role. These weapons often denied the enemy access to the exposed flanks of friendly penetrations.

Exploitation and pursuit operations tend to feed the



Soldiers from the 4th Division unload spent missiles from their M901 vehicle.

continuing dialogue on the disparity in mobility between the M113 generation of tracked vehicles and the newer Abrams and Bradley mix. We might do well to remember that speed alone is not the most important element of mobility — planning, anticipation, and execution are more important.

## FIRE PLAN

In the defense, fire planning and control are the keys to the successful employment of a task force's antiarmor assets. The Echo Company commander submits the antiarmor fire plan, which includes TOW, tank, 25mm, Dragon, and artillery fires (as well as tactical air, gunship, and naval gunfire, if available). Control measures include trigger lines, engagement areas, kill zones, target reference points, sectors, priorities and techniques of fire, phase lines, battle positions, and boundaries.

When deployed along enemy avenues of approach the greatest danger to the antiarmor sections and platoons comes from their tendency to bunch-up. This is particularly true of the three-section platoon that might be deployed with other task force elements along a single avenue of approach. In this case, which is not an unusual one, a compromise must be reached between the need to mass fires and the equally important need to add depth to the defense. All too often the defense tends to become linear as leaders try to defend everything in the sector. This is dangerous, and we should be reminded of the old adage that "he who defends everything defends nothing."

Echo Company is well-suited to help provide depth in a

task force's sector. When employing the two-section ITV platoons, the best technique is to deploy the company in depth. Three-section platoons can achieve good depth by themselves. Often in the defense, a task force commander may wish to attach antiarmor platoons to companies or teams. When possible, a task force reserve force can be commanded by the Echo Company commander, built around an ITV platoon to counterattack by fire and a mechanized platoon to hold ground.

Echo Company is also particularly well-suited to the delay, especially when it is reinforced with a tank or mechanized infantry platoon and working with aerial or ground scouts. For example, Echo Company can provide the nucleus of a covering force and can be deployed as far as 15 kilometers forward of the main defense area. Deployed in depth, Echo Company can create a series of overlapping kill zones throughout the depth of the covering force area. As the enemy advances along his avenues of approach, he is worn down and slowed as the elements of the covering force fall back upon themselves, thereby gathering strength. Avoiding decisive engagement is critical, and so is avoiding the inevitable tendency of covering forces elements to "shoot and run." Anticipation is the key, and the control measures used for firing and moving must be simple and flexible.

Consideration should be given to attaching an artillery FIST to the Echo Company. Certainly for special missions, such as the covering force, the company needs a FIST. An alternative to a full FIST would be the addition of a spare radio mount in the Echo Company commander's track to accommodate at least an observer using the indirect fire net. If properly set up, TACFIRE can be operated right in the commander's track.

Supporting the Echo Company in the field will tax even the best company executive officer and first sergeant. Because Echo Company's elements often spread throughout a task force's area, the positioning of the executive officer and his group can present a great challenge. Unlike his line company counterparts, the Echo Company executive officer does not have a track, so he cannot stay too far forward during the battle. What he can do, though, is to position himself with the company's maintenance, recovery, and medical personnel close enough to be responsive.

The first sergeant brings the beans, bullets, and fuel

forward in platoon packages because it is seldom possible to feed, re-arm, and refuel the entire company in one place. Missile resupply at platoon level can be improved if the platoon command and control M113s are fitted with missile ready racks from the old M220 TOW vehicles. This immediate resupply of ten missiles represents 14 percent of the basic load of the three-section platoon and 20 percent of that of the two-section platoon.

An ITV is a weapon of position. No matter how good the weapon and crew are, if their position is poorly occupied, a disaster is likely to occur. Every ITV crew member must know what to do when occupying a firing position. Using an acronym for this process may be useful. The letters SCRAM, printed on the thumb and fingers of one hand, can help ITV crews remember the key elements:

**Security.** Normally, security means dismounting one crew member armed with an M203. This action is particularly important at night.

**Cover and concealment.** Often, the crew does not realize what a poor position they have occupied unless they physically get out of their track and look around. Whenever possible, tracks in the same ITV section should visually sharpshoot each other's positions.

**Range card.** A range card should be prepared in each occupied position. It is important to establish a time limit within which this must be done. By the time a track has been in position for 30 minutes, a range card should be completed.

**Alternate and supplementary positions.** Every crew member must know where these positions are and how to get to them, both mounted and on foot.

**Mutual support.** This includes the systems to the front, rear, left, and right as well as any other weapon systems in the area, including indirect fires.

Echo Company can be a powerful force on the modern battlefield, or its combat power can be diluted and lost. It is up to the entire chain of command to see that it is used to its best advantage.

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## An Execution Matrix

MAJOR ROBERT J. HENRY

There is little question that a properly prepared execution matrix can be of considerable help to a battalion commander and his staff in planning and executing a combat operation.

Unfortunately, the execution matrix in our current doctrinal manuals (Figure 1) shows only company (or team) battle positions, levels of position preparation, engagement areas, and orientation.

With some modifications, this basic matrix can be made more useful. These modifications include adding a task organization section, a block in which a mission statement can be written, and a block in which a unit's attachments can be shown. This modified matrix allows the battalion commander and his S-3 to plan almost an entire operation on one sheet of paper; it shows all of the battalion's combat elements, including its scout and 4.2-inch mortar platoons and any attached units.

The completed matrix in Figure 2, based on hypothetical units and a hypothetical operational situation, shows how this matrix can be used. Imagine the matrix blank, and follow the way it is filled out step by step.

The commander of the 2d Battalion, 114th Infantry (M), has been given the following mission: First to defend in sector and then to receive the battle from the covering force. The brigade

has taken one of the battalion's mechanized infantry companies — Company C — but has given the battalion these attachments:

- One tank company: C/2/80th Armor.
- Two engineer platoons: 1/C/104th Engineers (DS) and 3/B/111th Engineers (OPCON).
- Two Stinger teams: 4/D/522d Vulcan (DS).
- Two CEWI teams: Teams 1 and

2, 2/C/50th CEWI Battalion.

The S-3's first step in filling out the matrix is to list the organic and attached units. At this time, he shows the units in their pure states and lists the attached units in the attachment block.

The next step is to develop the mission statement for the task force. This process follows the METT-T method and the wargaming thought processes of the commander and the S-3. Eventu-

OCCUPY				
PREPARE				
RECON				
RECON				
MISSIONS				

Figure 1. Current matrix.

ally, they arrive at a detailed mission statement, and the S-3 puts it in the "TF mission" block.

The battalion commander now decides what he has to do to accomplish this mission:

- Because the enemy can hit his unit with two motorized rifle battalions and a mechanized company, he must break up that attack by defending in depth throughout his sector.

- He must stop the enemy forward of an important network of roads in the battalion's rear area, and this will take three companies (or teams) fighting from battle positions throughout the sector.

- He must put a strongpoint around the road network, because if the enemy force reaches that road network the battalion will be in serious trouble.

The battalion commander develops

an appropriate organization to do what he feels must be done. Here is his solution:

- He will form two company teams — Company A with an attached tank platoon, and the tank company minus one of its tank platoons but with a mechanized infantry platoon attached. Together with Company D, which will be used as a pure mechanized infantry company, these units will fight from the designated battle positions.

- Company B, minus one of its infantry platoons, will be the strongpoint company. Initially, it will have one ITV platoon and the direct support engineer platoon to help the commander dig-in his company.

- The scout platoon, reinforced by an ITV platoon and both CEWI teams, at first will screen the task force's front to keep track of the enemy

force. As the covering force begins its withdrawal, the scouts will man the two passage points given in the brigade order. Once the covering force hands off the battle, the scout platoon will screen the task force's right flank. At that time the ITV platoon will be detached from the scout platoon and attached to Company B at the strongpoint. The CEWI teams will revert to task force control.

- Initially, the 4.2-inch mortar platoon will be well forward. When it displaces it will do so by section so there will be no lull in its firing. The platoon will also plan and register an FPF in Company B's area along the main infantry approach and to cover any deadspace.

- All other elements will remain under task force control, at least in the beginning.

KEY		ATTACHMENTS					
	ON HAND		MECH		TANK		ITV
	DETACHED		CEWI		ADA		ENG
	NOT USED	<del>C/2-20 ACM</del> <del>H/10 ENG (DS)</del> <del>3/B/111 ENG (OPCON)</del> <del>4/D/3-522 VULCAN (DS)</del>					
UNIT	①	②	③	④	⑤	⑥	⑦
	TMA	B(-)	TM TANK	D	E(-)	SCOUTS	4.2
TASK ORG	1 2 3 4 5 1/C/2-80 	1 2 3 4 5 1/E/2-114 	1 2 3 4 5 1/B/2-114 	1 2 3 4 5 	1 2 3 4 5 	1 2 3 4 5 2/E/2-114 	1 2 3 4 5 
TF MISSION	TF 2-114 MECH DEFENDS IN SECTOR NLT 010001 A JAN 85 FROM NB430276 TO NB413235 ACCEPTS THE BATTLE HANDOFF AND ASSISTS THE WITHDRAWAL OF THE COVERING FORCE.						
①	1-1 OCCUPY EA RED EA BLUE EA KILL	1-2 PT STRONG EA KILL	1-3 EA WHITE TRP 3	1-4 EA YELLOW TRP 3	1-5 EA RED EA BLUE	SCREEN TF FRONT ALONG PL. LOOK EA GOLD ON ORDER MAN PP 7 & 8	GRID 9/0 GRID
②	2-1 PREPARE EA SILVER TRP 25	—	2-3 EA BLK EA GREEN	2-4 EA PINK TRP 17	2-5 EA PINK TRP 28	SCREEN TF RT FLANK FROM CP 2 TO CP 6 EA TAN TRP 22	GRID 9/0 GRID
③	3-1 RECON TRP 30	—	3-3 TRP 36	3-4 TRP 26 TRP 2	3-5 TRP 31	0/0 3-6 EA TAN	
④	1-1 COUNTER ATK	—	1-3	1-4	1-5	SCREEN TF FRONT ALONG HANDOFF LINE EA GOLD	
MISSIONS	EXECUTE OBSTACLE NO 6 ON ORDER C/ATK TO SEIZE BP 1-1 0/0	0/0 PICK UP ONE ITV PLT FROM THE SCOUTS NO MOVEMENT FROM BP 1-2 AUTHORIZED	SUPPORT BY FIRE TMA'S C/ATK FROM BP 2-3 RE-OCCUPY BP 1-3 0/0	SUPPORT BY FIRE FROM BP 2-4 0/0 RE-OCCUPY BP 1-4	ESTABLISH ALT TOC VIC CP 12 RE-OCCUPY BP 1-5 0/0	DETACH 1 ITV PLT TO BCO(-) UPON PASSAGE OF COVERING FORCE DETACH GSR TMS TO TF CONTROL 0/0	DISPLACE BY SECTION ONLY. PLAN SMOKE AND ILL IN SPT OF SCOUTS REG 1 FPF IN BLOCKS AREA BP 1-2

Figure 2. Modified matrix completely filled in. (Units are hypothetical.)



With this guidance, the S-3 selects the actual platoons he needs to comply with the commander's concept and completes the appropriate blocks on the matrix.

Company A is to be a full company plus a tank platoon, which makes it a company team. The S-3 darkens the first platoon block in the tank company's column, which shows that the first tank platoon has been detached. He then adds a tank symbol to the fourth block in Company A's column and places the unit designation for the tank platoon next to the symbol.

He then organizes Company B according to his commander's desires. He takes Company B's 1st Platoon and moves it to the tank company's column. He does this by blackening the first platoon block in Company B's column and adding a mechanized infantry symbol to the tank company's column, together with the mechanized infantry platoon's designation. This action also serves to form Team Tank.

The S-3 now attaches an ITV platoon to Company B — the 1st Platoon, Company E — and adds the DS engineer platoon to the same unit. To show this on his matrix, the S-3 darkens the 1st Platoon's block in Company E's column and adds an ITV symbol to the fourth position in Company B's column, together with its proper designation. He puts an engineer symbol in Company B's fifth position and identifies the unit. He also crosses out that engineer platoon in the "attachment" block of the matrix.

Since Company D will initially act in a pure state, the S-3 simply puts a large dot in blocks 4 and 5 of Company D's column to show that there are no attachments.

The scout platoon needs an ITV platoon, so the S-3 darkens the second block in Company E's column and adds an ITV symbol in the third block of the scout platoon's column. He also places the unit designation for that ITV platoon next to the ITV symbol.

The scout platoon also gets the two CEWI teams, and the S-3 adds this symbol to the scout platoon's column,

appropriately identifies the teams, and crosses out the CEWI teams in the attachment block.

Only the third platoon of Company E remains with its parent company. To show that there are no further attachments to or detachments from Company E, the S-3 puts large dots in the fourth and fifth blocks of that company's column.

The matrix now shows the complete organization the battalion commander wants. The S-3 then looks over his matrix and puts large dots in the unused blocks in each company's column. From this he can now tell at a glance how many and what type platoons are in each company. And by looking at his attachment block and seeing the units that he has not crossed out, he knows which units are under TF control.

The bottom part of the matrix is really the matrix that is now shown in our doctrinal literature, with one exception — the columns that have been added to account for the scout platoon and for the 4.2-inch mortar sections.

This part of the matrix is filled out in the manner described in our current how-to-fight manuals. The columns for the scout platoon and the 4.2-inch mortar sections are filled out in the same way the line unit columns are, but additional notes and grid coordinates can be inserted to better describe the units' assigned missions.

To make the matrix even more functional, both the position levels of preparation and the companies can be numbered. Thus, as can be seen in Figure 2, the levels of preparation are placed on the left side of the matrix and numbered in the order in which they will be carried out. In the example used with this article, the levels of preparation and the corresponding numbers are:

NUMBER	LEVEL OF PREPARATION
1	Occupy
2	Prepare
3	Reconnoiter
4	Counterattack

The units are numbered as they appear in the completed task organiza-

tion. Thus, the unit numbers are:

NUMBER	UNIT
1	Team A
2	Company B (-)
3	Team Tank
4	Company D
5	Company E (-)
6	Scout Platoon

By combining a level of preparation and a unit number, an S-3 can easily assign battle positions. Thus, in the example used, the first level of preparation the task force will undertake is to occupy battle positions along the FEBA. Therefore, Team A's battle position would be BP 1-1. (The first number is the level number, the second is the unit number.) Company B (-) would have BP 1-2; Team Tank, BP 1-3; and Company D, BP 1-4.

When the commander moves his units into the second part of the operation — prepare — Team A's battle position number becomes BP 2-1. The battle position numbers follow the same sequence used for the TF's missions.

The new execution matrix is much more effective than the present one in planning a combat operation. It gives a commander a more complete picture of his total force, because combat power, task organization, attachments, missions, and unit levels of preparation are all shown on one piece of paper.

The new matrix is not difficult to handle; its completion requires only a little practice. It is also flexible and can be used with different types of operations.

And, finally, it provides a commander with a formatted sequence to his operation that will be of great help to him on the complex battlefields of the future.



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# Defensive Sector Sketches

CAPTAIN HAROLD E. RAUGH, JR.

The best defensive positions are those that are planned with two considerations in mind — which positions will make the most of the defender's advantage, and which weapons will be the most effective against the attacker. One way a defender can plan his positions and control his fires effectively is through the use of sector sketches. And these sketches can also help him determine how well those fires will cover his sector.

More training needs to be conducted on the use of sector sketches. Then all rifle squad leaders, platoon leaders, and company commanders should be required to develop sketches and submit them to the next higher echelon of command.

When given a battalion operations order that prescribes a defensive mission, each of these leaders first begins his troop leading procedure and makes a tentative plan on the basis of his METT-T analysis.

**Mission.** He considers the unit's mission, including the specified and implied tasks involved in it.

**Enemy.** He considers the enemy situation, the size and type of units, where they are, their ability to reinforce, the weapons and units in support, and their capabilities and tactics.

**Terrain and weather.** He considers observation and fields of fire, cover and concealment, obstacles, key terrain, avenues of approach, and the effects of weather on personnel, equipment, visibility, and trafficability.

**Troops (and other assets) available.** He considers all the resources available to him. (A squad leader, for example, after his analysis, develops his plan in the following sequence: He positions his machineguns and Dragons, posi-

tions his troops, emplaces obstacles and mines, and then develops targets.)

**Time.** He considers the time available.

(The Armor School adds to these items Space available to get METT-TS.)

Each leader then prepares a defensive sector sketch to help him plan his defense and control his fires. The sketch should show at least the following:

- The main terrain features in the sector of fire and the estimated ranges to them.
- Each primary position.
- The primary and secondary sectors of fire of each position.
- The type of weapon in each position.
- Observation post (OP) and leader positions.
- Target reference points (TRPs) in the sector.
- Deadspace.
- Obstacles.
- Final protective line (FPL) for dismounted machineguns.

(Excellent examples of squad and platoon sector sketches are found on pages 4-14 and 4-15, Field Manual 7-8.)

The heading of a squad sector sketch should include the unit (no higher than platoon) and the date-time group. Each squad leader should submit his sector sketch to his platoon leader within 30 minutes after he completes his METT-T analysis.

The platoon sector sketch is basically a consolidation of the major items from the squad sector sketches. A platoon leader develops his plan in the following sequence (after conducting his METT-T analysis). First, he positions his machineguns and

Dragons; then he positions his squads, emplaces obstacles and mines, and develops targets.

After checking the range cards and the squad sector sketches, the platoon leader adjusts the sectors or weapons as necessary to cover any gaps or other flaws in his fire plan. When convinced that his plan is as complete and effective as possible, the platoon leader makes his platoon sector sketch showing:

- Squad sectors of fire.
- Machinegun and Dragon positions and sectors of fire, including FPLs and PDFs of the machineguns and TRPs for the Dragons.
- Mines and obstacles.
- Indirect fire planned in the platoon's sector of fire (targets and FPFs).
- OPs and patrol routes (if any).
- The platoon command post (CP) location.

The heading of the platoon sector sketch gives only the platoon designation and the date-time group. The platoon leader makes two copies of his sector sketch, keeping one and giving the other to his company commander within one hour after completing his METT-T analysis.

At the company level, the commander has more direct and indirect fire weapons available to him, and he needs to include all of them when he develops his defense plan in his sequence: He locates any armor kill zones; positions TOWs and tanks, if available; confirms positions of all crew-served weapons; identifies locations requiring additional obstacles and mines; and develops targets.

The company commander analyzes all the platoon sector sketches when they are submitted and makes any



weapon and position adjustments that may be necessary. He then completes his company sector sketches. Unlike the squad and platoon sector sketches, the company sketch needs to be drawn to scale on an overlay. It should include:

- Primary and alternate traces for each platoon.
- All M60 and .50 caliber machine-guns and Dragons.
- All mortars, including primary and alternate positions for the company's organic mortars.
- Indirect fire targets, selected by the company commander as well as those provided by battalion.
- Mines and obstacles.

- All TOWs and other weapons attached to the company.
- Primary and alternate CP locations.
- Armor kill zones in the company sector.
- All CP/LPs.

The heading on the company sector sketch states only the company designation and the date-time group. Realistically, the company commander should try to get a copy of his sector sketch to his battalion commander within 90 minutes after he completes his METT-T analysis.

Squad and platoon leaders and company commanders need to plan their defense effectively, and the sector

sketch is an excellent way of doing this. It helps determine the adequacy of sector coverage and also helps in controlling fires. By using the METT-T analysis listed here and the described sequences of defense and sector sketch planning, commanders can effectively organize their unit defenses to halt and destroy any attacking enemy.



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## 72 Ways to Win Bigger

LIEUTENANT COLONEL WAYNE A. SILKETT

Army 86 was developed to increase the Army's ability to cope with changes in the technology, organization, and nature of the Soviet threat. Basically, the Army feels it must be prepared to fight outnumbered and win. Specifically, this means the Army, from battalion through theater, must be able to see deep, attack deep, apply combat power, and protect and sustain the force.

Critical to these requirements is the role of superior technology, and every element of the Division 86 force structure will in some fashion benefit from its effects. Even the infantry battalion will benefit. Or will it?

Among the improvements envisioned for the Division 86 infantryman, for instance, is a series of small arms designed to increase his firepower. An increase in firepower serves two purposes: It increases potential lethality, and it lessens the need for developing and maintaining individual marksmanship skills.

The effect of superior weapons technology elsewhere in Army 86 is obvious, and high technology examples abound: the TOW antitank missile, the "smart" bomb, and the cruise missile. Even the tank is a technological benefactor. Thanks to such improvements as the laser rangefinder, a single main battle tank (MBT) round has a 50:50 hit probability at 2,000 meters. In short, what the tanker can see, he can hit.

But the infantry's planned technological future seems to represent a marked departure from the combination elsewhere of reduced ammunition expenditure, high accuracy, and high lethality. Is this the way to go? How about another look.

### A MODEST PROPOSAL

At the infantry battalion level, significant benefits could accrue if we turned at least 72 riflemen per battalion into snipers.

Opponents of sound marksmanship in general and superior marksmanship in particular have long done the infantry a disservice and the enemy a left-handed favor: By neglecting the human factor in the man-plus-machine equation, they have substituted firepower for marksmanship. Thus, volume of fire takes the place of accuracy and apparently is to continue doing so. And all this ignores the fact that there are many electronic and optical improvements that can dramatically increase the individual rifleman's lethal potential.

The emphasis on increased small arms firepower has resulted, however, in a corresponding deterioration of the existing regard for even the most basic marksmanship techniques, skills, and standards. Thus the "cone of fire" has replaced an individual soldier's aimed fire. As a result, the infantryman now shoots more but hits less. This ability to shoot more, aided by weapons that fire ever faster and

ammunition that gets ever smaller and lighter, has made firepower more important than accuracy and now threatens to divorce the two entirely.

But enough on theory. How about reality?

Part of the reality of Army 86 is adequately addressing the Soviet threat, which has technological, geographical, and numerical dimensions. A critical part of the geographical dimension is the potential European battlefield. Not only will that battlefield be saturated with targets but these targets will be alarmingly close, especially for the infantryman. Nearly 85 percent of the target opportunities on a European battlefield will be within 1,500 meters. This is simply a function of terrain and urbanization; it does not address the additional constraints of weather, night, or smoke. In fact, urban areas, either intact or largely rubble, provide one of the best cases of all for developing and employing snipers.

Another Army 86 reality is so real as to be axiomatic: fighting outnumbered. Not only will significant reinforcement be unlikely — or at least untimely — on a future European battlefield, so too might even so basic a matter as resupply. Does it make great sense, then, to prepare and equip infantrymen for high rates of fire when the resulting ammunition expenditures may not be readily replenished?

There are also other realities to consider. Many of the infantry "targets," such as armored vehicles, will be quite impervious to high volumes of small arms fire anyway, at least, most of the time. (Strangely enough, while small arms usage — rifle, automatic rifle, machinegun — goes ever further in the direction of high rates of fire at the expense of accuracy, improvements in other infantry munitions — particularly those intended for use against armored vehicles — demand the opposite. The LAW, the rifleman's assault weapon, various bullet-trap type rifle grenades, and improved 40mm M203 grenades all demand accuracy for the best results. Since the Army does not expect dozens or even hundreds of these munitions to be fired indiscriminately in the direc-

tion of the enemy with only the vaguest expectation of a hit, why should it tolerate anything different with the soldier's basic weapon?)

For the infantry, though, neither combat in cities nor combat in general reduces the requirement for firepower at the lowest levels. Large numbers of snipers would simply complement the employment of other infantry battalion weapons.

## REVIEW OF THE ISSUES

The present state of U.S. Army marksmanship is not good. Opponents of decent marksmanship seem to see it as an outmoded and unnecessary skill. Technology, they say, can easily substitute for that skill.

But the possession of high technology is less valuable than the mastery of it. The Falkland Islands and Bekka Valley experiences alone prove this. Merely pointing a weapon in the general direction of a target and spraying hundreds of projectiles at it will not necessarily increase the likelihood of hitting it. In fact, poor marksmanship techniques combined with a high rate of fire may well result not only in reinforcing the miss and the near miss but in institutionalizing them.

Good shooters have known ever since the first rock was thrown in anger that one hit on a target is worth infinitely more than any number that are not. And a hit is a function of weapon, training, practice, and confidence.

Training two snipers per squad in an infantry battalion would require a high quality marksmanship program. Such a program should not, however, have the goal of training Olympic-caliber marksmen. Its goal should be to turn out better than average shooters — much better. Available technology would take care of the rest.

But shooting is only one part of a successful sniper's skills. He also must be well trained in target identification and acquisition, must be an expert at camouflage and undetected movement, and must be capable of operating either as part of a squad, in combination

with other snipers, or alone.

Whatever else a European battlefield may produce, it will not produce a shortage of targets. Any officer, forward observer, artilleryman, traffic controller, vehicle commander, driver, radio operator, or reconnaissance trooper who is exposed — however briefly — will be a priority target. With modern technology and adequate training, what the modern marksman can see, he can hit. And he can do so far more efficiently than contemporary small unit weapons and tactics permit.

The urban battlefield is truly three-dimensional. Sniping positions and opportunities are thus virtually unlimited. With more than 70 snipers per battalion operating on both sides of the FLOT (forward line of own troops), an infantry battalion would truly be able to see deep, attack deep, and apply combat power.

Snipers could focus less on the "average" target and go after the ones that would hurt the enemy the most at that time: leaders, forward observers, communications and logistics personnel, and drivers. Killing or wounding an officer hardly means a battle won, but it almost always hurts the enemy more than killing or wounding a private.

Contrary to the theory advanced by the detractors of marksmanship training — that the modern battlefield reduces the value of aimed fire and increases the value of volume fire — the modern battlefield to a substantial degree does the opposite. Individual targets will be more protected than in previous wars. Helmets, body armor, rubble, terrain, and vehicles all will make hits more difficult to obtain. Under these circumstances, precision aimed fire will provide results far superior to those of "cones of fire."

In addition, individual snipers or small sniper teams can move more rapidly with less likelihood of detection than even the rifle squad; and sniper fire will not only score more hits for less ammunition expended, but the reduced volume of fire required for those hits will be more difficult to trace and neutralize.



Snipers never have been either employed on a large scale or well integrated into the overall defense. In the U.S. Army in particular, this is not surprising: Virtually all U.S. urban combat in the past has been offensive, not defensive. But times have changed, both in terms of the likelihood of our being on the defensive and in terms of using the sniper to the best advantage while on the defensive.

One sniper cannot be "everywhere," of course. But dozens of them in each defensive sector can be *almost* everywhere, or will certainly *seem* to be. Since offensive urban combat is already slow and demanding, effective sniper fire would be very difficult to neutralize and thus would aggravate an already strained offensive situation. Neutralizing many snipers at once from all parts

of the battlefield would complicate the matter even further.

Heavy losses from unseen, difficult-to-neutralize snipers who seemed to be everywhere would increase the psychological strain on the attacker and further impair his morale and his effectiveness. Able to move more frequently than the rest of the battalion, snipers could appear again and again from supposedly "cleared" locations. The enemy would then have two options: reclear these areas, spending time and resources, or suffer higher losses (and increased psychological strain).

Snipers alone would probably win few battles. The same can be said for infantry alone, or armor alone, or artillery or airpower alone. But a well developed, imaginatively and aggressively employed large-scale sniper effort

could do for the Division 86 infantry battalion what no other combination of tactics, organization, and "advanced" weaponry could do: significantly increase mobility, cost-effectiveness, survivability and — most importantly — lethality. Best of all, the ones who stood to lose the most would be the ones who should. And isn't that what Division 86 is all about?



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## Infantry Mortar Training

**MASTER SERGEANT ROBERT E. BREWSTER**  
**MASTER SERGEANT CLINTON WILDER, JR.**

In today's Army there is a serious shortage of realistic, effective training devices for the Infantry's mortar platoons. Therefore, today's mortar crews are limited to three types of training: dry firing, subcaliber firing, or live firing with current service ammunition.

Dry firing is perhaps the most cost-effective method of training conducted by mortar platoons, but it is also the most tedious and unrealistic, and it does not give the forward observers or the ammunition bearers any training in their specialties. Training with subcaliber devices such as the sabot and the pneumatic firing device is an improvement over dry firing, but it is still not realistic, and it still does not provide any training for the ammunition bearers.

The use of service ammunition provides the best training, of course, but it is the most expensive. The expense of using service ammunition for training limits the amount of ammunition, thereby restricting training. As a result, training standards are lower than what commanders expect.

Within the next few years, all Army mortar platoons, 60mm, 81mm, and 120mm, may be capable of conducting their platoon ARTEPs on a field no longer than 600 meters in depth. This will be possible because of a new training device currently being co-developed by the Army Research and Development Center and the U.S. Army Infantry School. This training device, known as the "LITR" (low-cost indirect-fire training round), will be capable of adding realism to the

current training of our mortar crews and of providing all crew members with effective training in all aspects of mortar gunnery.

Because the LITR is a reasonable facsimile of the corresponding service ammunition, it will enable a mortar crew to practice realistic ammunition handling techniques, and it will give the forward observer an adjustment capability and the FDC the necessary training in FDC procedures.

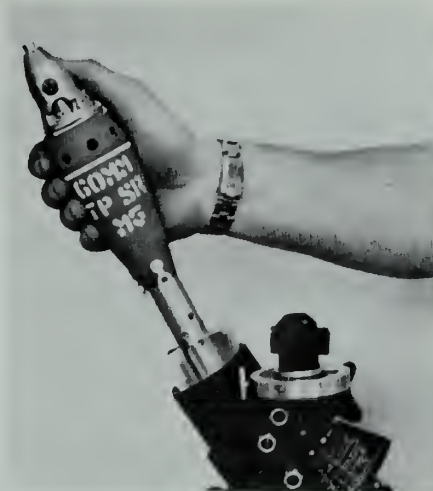
The LITR's accuracy provides excellent target practice, because this full-caliber training round is equal in weight, shape, and operation to a tactical (standard) mortar cartridge.

The mortar and the sight are used exactly the same way they are used with standard ammunition. The LITR's range can be varied both by

elevation of the tube and by removal of increments. (The removal of LITR increments is simulated by removing plugs from the projectile.) The "safe" and "arm" mechanism of the fuze makes it safe to handle and fire. On impact, its spotting charge simulates a detonation by providing a flash, bang, and smoke signal. The fuze incorporates a selection button that simulates the "super quick" mode. The fuze assembly contains a cap similar to that on the multi-option fuze system.

The cost of this new training system (\$30 per 81mm mortar) will allow more rounds for training. Additional cost savings can be found in the refurbishing of the LITR once it has been fired. To refurbish the LITR, all that is necessary is to visually inspect the fired round, remove the old fuze and fin assembly, and replace it with a new fuze and fin. Total cost — approximately five dollars. Retrieving the fired round will be the responsibility of the crew that fired it, but it has not been decided whether the crew or direct support maintenance will refurbish the round.

Technical data on the proposed LITR rounds has been developed for all the 60mm, 81mm, and 120mm mortars, and testing is being conducted on the 60mm and 81mm rounds. The 120mm round will be



fielded with the 120mm mortar system.

The LITR will be incorporated into the indirect-fire training system as the training round to be used instead of standard HE ammunition. It could be incorporated into live fire training exercises as well to reduce the cost of firing service ammunition. A one-tenth scale LITR, with smoke signature only, will be used by crews where there is no firing range — on parade fields, for example, or on large open areas — to increase effectiveness and realism and to reduce cost.

The approach that will be used in integrating the LITR into institutional and unit training programs will be based upon the standards outlined in the direct fire soldiers manuals, the

skill qualification test, and ARTEPs 7-15 and 71-2. Existing indirect-fire training programs will be revised or modified as appropriate to provide for the LITR.

In the future, the mortar platoon's indirect fire support is going to be relied upon more and more; company and battalion commanders must therefore have confidence in the ability of their "hip pocket artillery."

It has been said that to prepare for war you must have an adequate training program during peace — our mortar platoons have been "short changed" on training in the past, and the LITR may help even out this shortage.



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# The Indicating Round Technique

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Modern technology allows us not only to introduce new equipment, but also to give older systems and techniques a new lease on life. Although laser range finders have been with us

for some time and are used extensively on today's modern battlefield, they have not normally been used by Infantry soldiers at company level. In Great Britain, however, the hand-held laser

range finder (HHLRF) has given the mortar platoon a new and important procedure — the indicating round technique (IRT).

The IRT gives a forward observer



(FO) "first round hit" accuracy with less than a 50-meter error; it records multiple targets without actual adjustment; and it significantly lengthens the battle life of mortar crews by not requiring extra rounds that may be tracked by radar. The HHLRF allows the FO to have his position accurately plotted by the FDC, either on the plotting board or with the mortar ballistic computer (MBC).

The IRT uses geometric principles with two known angles and distances. The mortars and the observation post (OP) use a single round on the ground as a common data point. The mortar-men get the range and azimuth from the plotter, while the observers find the range and azimuth by using the HHLRF and a compass. The triangular relationship thus created allows a level of accuracy that has not been possible in the past.

This technology can also be used in areas where maps are either useless (large flat desert areas, for example) or non-existent. Indeed, once a mortarman has put his initial round on the ground, he may never again need to use his map for fire control.

The procedure is simple:

- Once the baseplates have been settled, the FO calls for an adjusting round to be placed into an open area. This open area must be safe to friendly forces, and the FO must be able to positively identify his round among other fires. He can use high-explosive or smoke ammunition.

- As soon as the round lands, the FO uses his HHLRF to obtain an accurate (plus or minus 10 meters) range to this round.

- He must also obtain an accurate (plus or minus 10 mils) grid azimuth using his compass. If he already has a

known point in the vicinity, he may use the reticle pattern in his binoculars to work out the grid azimuth. If the FO is uncertain of his ability, he may repeat these first three steps.

- The FO then sends an order to the FDC that will cause his position to be accurately plotted on the plotting board — for example, "Record OP, direction 1420 mils at drop 1,720 meters (range to fall of shot).

- The FDC uses the FO's information to backplot from the adjusting round that was fired into the open area. In this example, on the plotting board the FDC places the direction of 1420 mils above the index and, using the range arm (removed from the pivot point), measures down from the plot the range sent by the FO (1,720 meters), makes a plot there, and marks it with a symbol for an OP and the call sign of the FO. The OP may be given a user number if the FO has alternate positions. (The FDC may also record these alternate positions.)

- Once the OP is recorded, the observer can use the polar technique without adjustment and go straight into immediate suppression — "Fire for effect POLAR, OP3, direction 1260 mils, distance 1,000 meters, enemy platoon in open."

- At the FDC, the new azimuth or direction is indexed, the range is measured up from the OP, and a plot made. Charge, deflection, and elevation are obtained as usual.

This simple procedure uses one adjusting round to accurately locate an OP instead of a target. It also effectively lessens or removes any errors that may exist or that may be caused by the following:

- Inaccurate map reading at gun line during occupation or in the OP

when locating targets. (Remember that this technique can be used without a map.)

- Incorrect azimuth-related procedures during setting-up drills on the gun line.

- Any unaccountable meteorological effects, particularly wind.

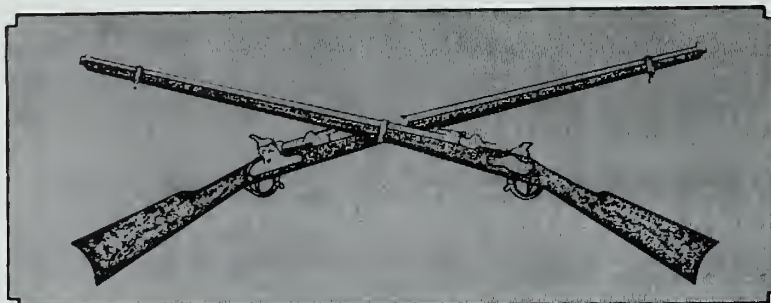
- Any range table versus actual range error caused by ambient charge temperature.

The procedures outlined here are in their simplest form; other more complex operations can also be carried out using the HHLRF. And the information may be encoded to keep the enemy from finding the FO's location from the information he sends to the FDC. The use of the indicating round technique allows the forward observer to engage with effective accurate fire any target he can see without making lengthy adjustments that will usually give away his intention and allow the enemy to take evasive action.

Given the speed of modern mechanized warfare, we have to be able to retain the flexibility to hit the enemy quickly, forcefully, anywhere we wish without relying on him to move on or near our pre-recorded targets. Along with current and future ammunition types (including the GAMP round), the use of the indicating round technique will give us this flexibility.



**Warrant Officer 2 Keith F. Hoyle** is part of an exchange between the British School of Infantry and the U.S. Army Infantry School, where he is assigned to Company B, 1st Battalion, 29th Infantry to conduct mortar instruction.



# ENLISTED CAREER NOTES



## PROMOTION POINTS

A revised Promotion Point Worksheet (DA Form 3355) has been implemented for soldiers being recommended for promotion to sergeant and staff sergeant. (See *INFANTRY*, March-April 1985, p. 46.)

The revised form was implemented on 1 May for those being recommended for promotion to sergeant and 1 June for those being recommended for staff sergeant.

Promotion points will now be recomputed annually instead of semi-annually. The next recomputations will be in February 1986 for soldiers on the sergeant list and May 1986 for those on the staff sergeant list. From then on, points will be recomputed every February and May.

Soldiers will still be able to reappear before a promotion board earlier than the scheduled recomputation in order to add points for recent achievements.

## SFC AND ANCOC BOARDS

A DA selection board will convene at Fort Ben Harrison, Indiana, on or about 1 October 1985 to consider eligible staff sergeants for promotion to sergeant first class. The board will also select staff sergeants to attend ANCOC in Fiscal year 1987 under provisions of AR 351-1 and identify unsatisfactory performers in accordance with Chapter 4, AR 600-200.

Promotion eligibility criteria are:

- Date of rank before and including 30 June 1983 and basic active service date up to and including 31 January 1980. (Primary zone — DOR 31 May 1982 and earlier; secondary zone — DOR 1 June 1982 through 30 June 1983.)

- High school diploma or GED equivalent.

- Not restricted from promotion consideration under provisions of Paragraphs 7-37 and 7-64, AR 600-200.

- Not denied reenlistment through QMP bar in accordance with Chapter 4, AR 600-200 or through locally imposed bar in accordance with AR 601-280.

For ANCOC, these criteria apply:

- Meet BASD and DOR criteria cited above for promotion.

- Not previously selected.

- Not denied reenlistment through either type of bar.

- Not graduated from ANCOC non-resident course.

QMP screening criteria are:

- Meet BASD and DOR criteria cited above.

- Meet those criteria and have approved local bar to reenlistment.

- Special bandsman within the BASD and DOR criteria cited.

“Complete the record” reports are optional. They may be submitted only for soldiers in the zone who have completed at least three months in their current duty positions as of 31 July 1985 and who have not been evaluated previously in their current positions.

Further information is available from local MILPOs or PACs, or from Master Sergeant McInnis, AUTOVON 225-4660; commercial 202/695-4660.

## SP5s AND SP6s ELIMINATED

The Army will no longer have specialists five or six in its inventory after 1 October when soldiers in those ranks convert to “hard stripe” NCOs. Specialist fours will be retained, however. The soldiers affected will be able to obtain their new rank insignia through the Army supply system at no cost to them.

The decision to convert these spe-

cialists to NCO ranks was based on the recommendations of the proponents that have specialist ranks. The conversion process had already begun on an unofficial basis; many specialist five and six positions were already being filled by sergeants and staff sergeants. Specialist four slots, however, were almost all being filled by specialist fours.

Until 1 October, promotions into specialist five and six ranks will continue as in the past.

Commanders will still decide whether soldiers in pay grade E4 will be specialists or corporals in accordance with AR 611-201. Commanders may also laterally appoint specialists four who are serving in sergeant positions to corporal in accordance with Paragraph 2-43, AR 600-200.

## AVIATION COURSE

The Enlisted Aviation Branch at MILPERCEN needs soldiers with MOSs in the 67 series (aircraft maintenance) and MOS 68J (aircraft fire control repairer) to apply for the Aviation Technical Inspector Course at Fort Eustis.

Graduates of the course will then be awarded a new MOS in the 66 series and must fulfill one of the service obligations listed in AR 614-200 (Selection of Enlisted Soldiers for Training and Assignment).

To qualify, applicants must:

- Be in the rank of sergeant or, for the 66J course, staff sergeant or promotable sergeant.

- Be eligible for reenlistment.

- Meet the prerequisites for MOSs in the 66 series as outlined in AR 611-201 (Enlisted Career Management Fields and Military Occupational Specialties).

Soldiers who meet these criteria and are interested should send applica-



tions through their unit commanders and MILPOs to Commander, MILPERCEN, ATTN: DAPC-EPT-F, 2461 Eisenhower Avenue, Alexandria, VA 22332-0400. DA Form 4187 (Personnel Actions Request) should be used for applications.

This training is funded by MILPERCEN. Soldiers can attend on a TDY and return basis or in conjunction with a PCS move.

More information is available from Master Sergeant Walter Cole or Sergeant First Class Newman at AUTOVON 221-8322 or 221-8323.

### SEPARATING RC MEMBERS

Members of the National Guard and the U.S. Army Reserve who successfully complete their Initial Active Duty for Training (IADT) should be separated according to AR 635-200, Paragraph 4-2, and AR 612-201, paragraph 3-28. The special early release provisions of AR 635-200, Paragraph 16-9, do not apply.

Under AR 635-200, Paragraph 16-9, a commander may release a trainee early if the trainee is eligible for leave for reasons such as the death or serious illness of a member of his immediate family. In these cases, the commander may authorize early release from IADT instead of granting leave.

The soldier must have completed at least 12 weeks of IADT, and the training benefits that would result from his returning to the training center after leave must not be enough to justify that return.

The service of soldiers who are sepa-

rated during entry level status will not be characterized. For National Guard and Reserve members, entry level status begins when they enlist in the ARNG or USAR.

For soldiers on IADT for one continuous period, entry level status ends 180 days after they begin training. For those on IADT for the split or alternate training option, entry level status ends 90 days after they begin Phase II (advanced training). Soldiers who complete Phase I (basic training) remain in entry level status until 90 days after they begin Phase II.

This establishes a minimum requirement for the characterization of service and does not mean that the separation is adverse. A Guard or Reserve member who is separated while in entry level status does not receive an adverse separation. The completed DD Form 214 for these soldiers, showing the award of an MOS, the reenlistment code, and the narrative reason for separation, clearly shows that the soldiers' separation was not adverse.

More information is available from DAPC-EPA-AS, AUTOVON 221-8412 or 221-8413.

### EFMP QUESTIONNAIRES

Soldiers enrolled in the Army's Exceptional Family Member Program (EFMP) who have not completed questionnaires in the DA Form 5291-R series must do so immediately.

To have their families' special needs considered, soldiers must now attach completed questionnaires to the DA

Form 4787-1 (Request for Evaluation of Dependent Medical or Educational Problems) that they send to their gaining commander.

Since the EFMP was automated earlier this year, doctors' certificates and statements from teachers are no longer accepted.

Copies of these questionnaires are available from medical treatment facilities such as dispensaries and hospitals, or from the Army Community Service. Hospital and ACS workers can also help soldiers complete the questionnaires.

### BASIC NCO COURSES

The following is the schedule of Basic Noncommissioned Officer Courses (BNCOC) to be offered at the United States Army Infantry School during FY 1986:

CLASS NUMBER	REPORT	CLOSE
<b>BNCOC (Combat Arms, 11B)</b>		
1	1 Oct 85	1 Nov 85
2	14 Nov 85	18 Dec 85
3	8 Jan 86	10 Feb 86
4	13 Feb 86	17 Mar 86
5	24 Mar 86	23 Apr 86
6	28 Apr 86	29 May 86
7	9 Jun 86	11 Jul 86
8	21 Jul 86	20 Aug 86
9	25 Aug 86	25 Sep 86
<b>BNCOC (Combat Arms, 11C)</b>		
1	1 Oct 85	1 Nov 85
3	8 Jan 86	10 Feb 86
5	24 Mar 86	23 Apr 86
7	9 Jun 86	11 Jul 86
<b>BNCOC (Combat Arms, 11H)</b>		
2	14 Nov 85	18 Dec 85
4	13 Feb 86	17 Mar 86
6	28 Apr 86	29 May 86
8	21 Jul 86	20 Aug 86



# OFFICERS CAREER NOTES



## BRANCH CHIEF'S NOTE

As I prepare to turn Infantry Branch over to Lieutenant Colonel Ted Reid, I offer a few insights that I have gained in the past year. Although I hope these insights will be meaningful to all Infantry officers, they are primarily aimed at our company grade officers and their commanders.

First, it may sound like a tired cliché, but the single most important factor in being a successful officer is to perform well in whatever job you get. The one common denominator in the careers of successful Infantry officers is the fact that they have served well in each job. All of my comments must be prefaced with that understanding.

One of the strengths of Infantry officers is their desire to stay with troops as long as possible. That's the way it should be, especially for company grade officers. The reality of Army priorities demands, however, that when most captains become branch qualified, they serve at least one assignment away from troops. To help both the Infantry officer and the Army, I recommend that battalion commanders not put officers into company command until after they have attended an advanced course. This will ensure that the officer has at least two troop tours early in his career when he needs it the most. It will also help soldiers in the units by giving them more mature commanders. Eighteen months is the average company command length, with commanders in short-tour areas serving for 12 months. Since only 90 percent of Infantry captains get commands, Infantry Branch discourages second commands except for Ranger companies and J-series headquarters companies.

As soon as an officer becomes branch qualified, he can expect his

next tour to be away from troops. This could be as an instructor in ROTC, at USMA, or at Fort Benning, or in an assignment in USAREC, in a major headquarters, or with the Reserve Components. Serving in the Infantry School at Fort Benning is one of the best ways to get credit for being away from troops while still staying close to our basic business, the Infantry. I recommend it.

Knowing that he must serve away from troops, each officer needs to consider the timing of that service. Since there are limited troop opportunities for majors, our first priority at Infantry Branch is for troop opportunities to go to those who are qualified to serve in those positions and who also have been away from troops. Serving away from troops as a senior captain will put an officer in a better position to get back to troops as a major. This is especially important for Infantry officers who want a shot at commanding a battalion. Recent battalion command lists show that the selectees have an average of about 20 months as battalion S-3 or XO, or brigade S-3 and that very few have been selected without having held any of these jobs.

An examination of promotion statistics verifies that virtually all officers promoted to lieutenant colonel have attained Military Education Level (MEL) 4 by completing staff college, either resident or nonresident. Any officer who is not selected to attend during his first two years of eligibility should enroll and start the course as a nonresident immediately so that he can be assured of completing it before being considered for lieutenant colonel.

Finally, I urge all Infantry officers, especially commanders, to become familiar with Chapter 11 of DA Pamphlet 600-3 and all Special Operations

officers to also become familiar with Chapter 18. These chapters provide the proponent's guidance on professional development. In instances where a commander is still not sure how a personnel action may affect him or one of his subordinates, Infantry Branch can either help him assess the effect or refer him to the appropriate expert.

I leave Infantry Branch proud of its dedication to Infantry officers. My commitment during my tenure has been to provide totally honest, fair, and sensitive service to tested professionals. I hope that this commitment has been evident in the field. I leave confident that Colonel Reid will serve you well as Branch Chief.

**LTC Bill Hoyman**

## REVISED OPMS

The implementation of the revised Officer Personnel Management System (OPMS) will gradually change the officer corps from a dual specialty system to one in which officers will be managed, developed, and promoted by branch or functional area or both. (See *INFANTRY*, July-August 1985, p. 47.)

Plans for the transition are being developed at MILPERCEN. As part of that process, individual qualifications will be reviewed, and the desires of the officers affected will be solicited before a decision is made on reclassification. Many of the officers who have grown up under the current OPMS will be "grandfathered" if they are considered equally qualified in both of their currently held branch specialties. This means, for example, that an officer who holds specialties 11 and 92 (Infantry and Quartermaster branches) and is found to be qualified in both, may retain those specialties.



Officers not qualified in their currently designated branch additional specialty will be given an opportunity to request a new functional area. Officers whose qualification in their second branch is far stronger than in Infantry will be given an opportunity to request transfer into their second branch. A decision on allowing officers to hold a combination of SCs 18 and 48 or 18 and 54 is pending a detailed review by the Special Operations proponent.) Under the revised OPMS, officers will have only one branch and one functional area. Full implementation of the revised classification system is expected in FY 1987.

Officers in Year Group 1979 are scheduled to have additional specialties (functional areas) designated in late 1985. All infantrymen are expected to be designated into functional areas instead of into specialties or other branches as we make the transition to one branch per officer.

## SERVICE OBLIGATIONS

There is still some confusion among officers concerning the active duty service obligations they incur as a result of schooling, promotion, or permanent changes of station.

To help clear up some of the confusion, here are a number of situations with the service obligation each incurs:

- **United States Military Academy** — Five years from entry on active duty.
- **ROTC Scholarship Graduate** — Four years from entry on active duty.
- **ROTC Non-Scholarship Graduate** — Three years from entry on active duty.
- **Officer Candidate School** — Three years from date of appointment.
- **Commandant's Program, Officer Basic Course (OBC)** — Three years from day following completion of OBC.
- **PCS (Overseas to CONUS)** — One year.
- **PCS (CONUS to Overseas)** — Prescribed tour length.

• **Senior Service College** — Two years from completion or termination of course.

• **Command and Staff College** — Two years from completion or termination of course.

• **Officer Advanced Course (OAC)** — One year from day following completion or termination of course.

• **Promotion to Major** — Six months to retire in rank of major.

• **Promotion to Lieutenant Colonel or Colonel** — Three years to retire in same grade.

• **Funded or Partially Funded Schooling** — Three times the length of schooling in days, but not more than six years, except for officers who accept a fellowship, scholarship, or grant to attend civil schooling under provisions of AR 621-7. These officers may exceed the six-year active duty service obligation.

• **Conditional Voluntary Indefinite (CVI)** — One year from day following completion of current service agreement.

The governing regulation is AR 350-100, Officer Active Duty Service Obligations. Specific questions concerning this regulation may be addressed to the Personnel Actions Branch, MILPERCEN, AUTOVON 221-9421/0686.

## COMMANDERS' ROLE IN CVI SELECTION PROCESS

The newly implemented centralized Conditional Voluntary Indefinite (CVI) selection process presents new challenges to commanders in the professional development of their other-than-Regular Army (OTRA) officers.

Unlike RA officers, who remain in career status as long as they are competitive for promotion, OTRA officers must compete for CVI status. (See INFANTRY, January-February 1985, p. 45.)

Because a centralized CVI selection board at MILPERCEN selects only the best-qualified OTRA officers to continue on active duty, the documentation of an OTRA officer's early performance is critical. It is important,

therefore, for all commanders to fully understand the CVI process, the criteria for selection, and the effect initial and subsequent OERs have on the careers of their junior officers. Otherwise, deserving young officers may be denied the opportunity to develop fully on active duty.

CVI applications are forwarded through command channels once an officer meets certain minimum requirements. Specifically, he must have at least two years of active federal commissioned service (AFCS) on his current tour and must submit his application before his 27th month of AFCS. (This requirement applies to both three- and four-year OBV officers.)

More important, the officer must be willing to accept a branch transfer, if necessary, as part of being awarded CVI status. During professional counseling, commanders should explain to their OTRA officers that rebranching of junior grade officers is necessary to meet Army officer requirements at the captain and field grade levels.

Commanders must also advise their Reserve officers that even top performers may be chosen for mandatory rebranching. This means that each officer should consider carefully before indicating his preference for branch transfer, because his choice may have long-term consequences.

Officers who are not selected for retention will have to separate within 90 days of written notification, or at the end of their initial obligated tour, whichever is later.

Officers must understand, too, that there are no regulatory provisions for appeals for reconsideration, unless there has been a material positive change to their Official Military Personnel Files (OMPFs). Active duty extensions will not be granted pending results of requests for consideration, or pending the outcome of OER appeals.

Commanders should know that once an OTRA officer has been selected for CVI status, the first year is probationary, and the officer incurs a one-year active duty service obligation.

To the commander, this means that misconduct, failure at an Army-sponsored school, or a decline in duty performance are reasons to revoke the officer's CVI status. (If CVI status is revoked during the probationary period, the officer will separate from active duty within 90 days.)

On the other hand, commanders must make sure that officers who are slow to develop, but who show potential for future service, have their duty performance documented so that it clearly indicates that potential. Commanders should be aware, too, that OERs designed to "get an officer's attention" will likely deny him continued active duty.

A commander who completely un-

derstands the CVI selection process and its effect on career status will meet the command challenge of being mentor and coach to his junior officers. To do otherwise is a disservice to our high-quality OTRA officers.

### CAS<sup>3</sup> SCHEDULING

Current Army policy is that all officers in Year Group 1977 or later must attend the Combined Arms and Services Staff School (CAS<sup>3</sup>) between their sixth and ninth years of active Federal Commissioned service. There are two ways to do this:

During the normal PCS process, an officer may be scheduled to attend the

course on a TDY basis enroute to his next duty station. Or, while still serving at an installation, an officer can attend in a TDY and return status. This latter method requires chain of command approval, followed by notification to MILPERCEN for scheduling of class dates.

The class schedule for Fiscal Year 1986 is as follows:

CLASS	START		CLOSE	
1-86	8	Oct 85	13	Dec 85
2-86	8	Jan 86	14	Mar 86
3-86	29	Jan 86	4	Apr 86
4-86	20	Mar 86	23	May 86
5-86	10	Apr 86	13	Jun 86
6-86	29	May 86	1	Aug 86
7-86	19	Jun 86	22	Aug 86
8-86	1	Aug 86	10	Oct 86
9-86	27	Aug 86	31	Oct 86

## RESERVE COMPONENT NOTES

### CAS<sup>3</sup> OPEN TO RC CAPTAINS AND MAJORS

The Combined Arms and Services Staff School Course, offered at Fort Leavenworth, Kansas, consists of a 142-hour nonresident phase and a nine-week resident phase.

The course is open to Reserve Component captains and majors with certificates from the officer advanced course and less than 13 years of total commissioned service. Applicants must also have recent height-weight statements easily accessible.

The Army Reserve is allocated 27 spaces for the resident phase in FY 1986, nine in each of the last three classes — Classes 7, 8, and 9. (The entire CAS<sup>3</sup> schedule for FY 1986 is shown elsewhere in this section of the magazine.)

USAR officers interested in attending Phase II in FY 1986 should enroll immediately in the requisite nonresident Phase I to have enough time to complete this phase before applying for the resident phase.

Applications for Phase I should be submitted through appropriate channels and through Commander, ARPERCEN, ATTN: DARP-OPM-P, to Commandant USACGSC, ATTN:

ATZI-SWE-TM, Fort Leavenworth, KS 66327-6930.

Upon completion of Phase I and verification of academic eligibility to attend Phase II, applications for active duty for training will be forwarded through appropriate channels to ARPERCEN for quota reservations, funding, and orders.

Active Guard Reserve (AGR) officers who are interested in attending should contact their personnel management officers at ARPERCEN.

The point of contact at ARPERCEN is MAJ Cone, AUTOVON 693-7707; at Office of the Chief, Army Reserve, Mr. Paxton or Ms. McGrew, AUTOVON 225-9866.

### RECORDS HELP (OR HINDER) USAR PROMOTIONS

Each officer in the U.S. Army Reserve must take the initiative to see that his record is complete. But unit commanders also share in this responsibility.

Recent promotion boards have identified recurring deficiencies in OER preparation that have had a negative effect on the officers being considered:

- Inconsistencies between narrative comments and numerical ratings. (If an officer deserves "top block" ratings, the rater should tell why in the narrative.)

- Brief narratives, which may indicate a reluctance to comment on an officer's potential; a subtle intent to rate him lower than the numbers indicate; or the rating officer's misunderstanding of the procedures shown in AR 623-105.

- A failure to indicate specific and comprehensive comments on the rated officer's potential, which implies that the officer's potential is limited.

- Height-weight data on OERs that conflicts with data from other sources. (It is not likely, for example, that an officer grows one or two inches just before the end of each rating period.)

Unit commanders are responsible for submitting OERs on time, through channels. Boards cannot consider OERs that are submitted by the officers being rated — only those submitted by supervisors.

It is to every Reservist's advantage to stay in touch with his ARPERCEN Personnel Management Officer to do everything that is required to see that his records are up to date and complete.



# BOOK REVIEWS



Here again are a number of recent publications we think you will find both interesting and informative:

- **BEFORE THE BATTLE: A COMMONSENSE GUIDE TO LEADERSHIP AND MANAGEMENT**, by Lieutenant General Edward M. Managan, Jr., United States Army Retired. Presidio Press, 1985. 228 Pages. \$10.95, Softbound. From "administration" through "wives" (and his "43 Commandments") the author spells out those things he feels he learned about military leadership during his more than three decades of service. All told, he discusses 76 different topics, which are arranged in alphabetical order. Each essay is relatively short, but all are about ways, means, and methods a troop commander can use to do his job better, more successfully, at the same time keeping the interests of his soldiers at heart.

- **AND BRAVE MEN, TOO**, by Timothy S. Lowry, Crown, 1985. 246 Pages. \$14.95. This book contains the very personal interviews the author conducted with 14 Medal of Honor winners from the Vietnam War in which the men describe the events surrounding their awards. It also contains the author's reflections on his own service in Vietnam — two combat tours there as a Marine — as well as the happenings in the United States while the events of the war were unfolding.

- **THE CONGRESSIONAL MEDAL OF HONOR: THE NAMES, THE DEEDS**. Sharp and Dunnigan, 1984. 1,105 Pages. \$27.50. This is an outstanding reference book, detailed, authentic, informative. It contains a history of the medal — first presented in 1863 — and the award citations arranged by war, campaign, conflict, or era. A total of 3,412 medals have been awarded for gallantry during wartime, and a handful of others —

17 — awarded by special legislation. The book also has five tables that complement the citations by providing much useful information about the medal and its recipients.

- **ROYAL UNITED SERVICES INSTITUTE AND BRASSEY'S DEFENCE YEARBOOK**, 1985, edited by the Royal United Services Institute for Defence Studies, London. Pergamon, 1985. 381 Pages. \$47.00. Once again infantrymen can find much in this annual publication that is of professional interest. There are essays by acknowledged experts on all sorts of subjects that range from an overview of the world scene to military technology, strategic issues, and a review of the year's defense literature. Of particular interest are the essays on land weapon developments during 1984 and the outline of the main trends in Soviet thinking about land operations in the European theater, both by Chris Bellamy, a British author who has written extensively on defense matters.

- **THE STARS AND STRIPES: WORLD WAR II FRONT PAGES**. Hugh Lauter Levin Associates, Incorporated, New York, 1985. \$19.95. Here is a representative selection of the front pages reproduced from a number of the more than 30 different editions of "Stars and Stripes" printed during World War II. The covers trace the events of the war from April 1942 — when the newspaper was reestablished in England — to October 1945, with the last cover being that of the 6 October 1945 issue of the China edition. The covers make fascinating reading and should bring back a veritable flood of memories to all World War II veterans and their families. They also contain much material of pure historical interest.

- **THE RED DEVILS**, by G.G. Norton. David and Charles, 1984.

310 Pages. \$22.50. Here is a new edition — the first was published in 1971 — in the publishers series titled "Famous Regiments." The author served with the British airborne forces on two separate occasions and is now the curator of the Airborne Forces Museum. He brings the story of the British airborne forces up-to-date with chapters on Northern Ireland and the fighting in the Falklands Islands. More than 100 photographs and illustrations complement a well-ordered narrative.

- **1986 MILITARY HISTORY CALENDAR**, by Raymond R. Lyman. Paladin Press, 1985. \$8.95. This unique and unusual calendar is in its second year of publication. This edition has all new photographs and much new information. Each day highlights a modern military event, and the calendar itself is illustrated with 48 photographs. This would make an excellent holiday gift for the military history student or buff. It can also serve as a useful reference tool.

The Battery Press of Nashville, Tennessee, has sent us copies of its two latest reprints of books that have been out of print for some time. They are **SINAI VICTORY**, by S.L.A. Marshall (280 Pages. 1985. \$18.95), an account of Israel's 100-hour conquest of Egypt east of the Suez Canal in 1956, and **PATHS OF ARMOR: THE 5th ARMORED DIVISION IN WORLD WAR II** (358 Pages, 1985. \$25.00), which was originally published in 1950; it is the 27th release in the Press's divisional series.

Finally, we would call your attention to these recent publications from the Government Printing Office:

- **INFANTRY, PART I: ARMY LINEAGE SERIES**, by John K. Mahon and Romana Danysh (1984 Reprint of the 1972 Edition. 954

Pages. \$21.00. S/N 008-029-00082-2). This volume in the Army's lineage series deals with the organization of foot units at the level of regiment and below. It begins with the Continental Army and goes through the Vietnam War.

• **1985 WEAPON SYSTEMS, UNITED STATES ARMY** (1985. 160 Pages. \$8.00, Softbound. S/N 008-020-01024-3). This publication concentrates on weapon systems and other equipment products of the Army's Research Development and Acquisition (RDA) program.

• **SOVIET MILITARY POWER, 1985** (4th Edition, 1985. 144 Pages. \$6.00, Softbound. S/N 008-000-00410-2). The information in this publication can be used as a valuable starting point from which to measure the current and projected strengths, trends, and global military capabilities of the Soviet Union's armed forces. It also provides a detailed report on the structure of the Soviet military services and examines the introduction of new nuclear and conventional Soviet military capabilities.

• **THE U.S. GOVERNMENT AND THE VIETNAM WAR, PART II: 1961-1964. THE EXECUTIVE AND LEGISLATIVE ROLES AND RELATIONSHIPS** (Prepared for the Committee on Foreign Relations, United States Senate. 1984. 424 Pages Softbound). This volume is part of an overall study of the roles and relationships of the Executive Branch and Congress in the Vietnam War; it describes events during the 1961-1964 period as the United States became progressively more involved in the Vietnam struggle. It has been prepared by the Congressional Research Service of the Library of Congress. The author is William Conrad Gibbons.

And here are a number of our longer reviews:

**NO MORE VIETNAMS.** By Richard Nixon (Arbor House, 1985. 240 Pages. \$14.95). Reviewed by Doctor Joe P. Dunn, Converse College.

Like all five books he has written since he left the White House, this volume is classic Richard Nixon —

emphatic, provocative, pugilistic, polemic, and self-serving. Despite the fact that it contains nothing new (most of the material reiterates Nixon's earlier memoirs), and that the basic points are much better developed by other scholars — Podhoretz, Palmer, Summers, and Lomperis, to name a few — the book does have merit and it will attract attention.

Nixon begins with the premise that no event in U.S. history has been as misunderstood, misreported, misrepresented, and misjudged as Vietnam. He outlines a list of myths, distortions, and falsehoods about the war and strives to refute them. In particular, he addresses four "articles of faith" of the anti-war movement: (1) the war was immoral, (2) it was unwinnable, (3) diplomacy without force is the best response to communist wars of national liberation, and (4) the U.S. was on the wrong side of history in Vietnam. Concomitantly, he debunks other canards — the struggle as a civil war, Ho Chi Minh as a selfless nationalist, the romantic popularity of the Viet Cong, the indiscriminate destruction of the U.S. combat effort, U.S. complicity in the triumph of the Khmer Rouge, and others.

The book does offer healthy correctives, but if we are to believe the author, Nixon consistently made the right decisions, he made the hard but moral choices, and his steadfastness won the war. Then Congress, in a spasm of irresponsibility, threw away the long and costly victory.

In brief sum, it just is not that simple, and Nixon bears far more guilt than he would begin to admit. Therefore, this is a book for the already convinced. It is a strong and good statement of some necessary truths, but it will not convince many skeptics.

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**TOURING NAM: THE VIETNAM READER**, edited by Martin H. Greenberg and Augustus Richard Norton (William Morrow, 1985. \$16.95). Reviewed by Doctor Mike Fisher, University of Kansas.

As the shadows of the Vietnam War lengthen, literary interest in the conflict continues to increase. This volume adds to the growing body of recent Vietnam War literature as our nation continues to review, reevaluate, and revise the emerging story of the trauma that consumed this nation during the 1960s and early 1970s.

In their book, Greenberg and Norton develop thematically an anthology of personal reflections, journalistic accounts, and fictional excerpts, following the chronology of an American serviceman's tour of duty in Vietnam. The selections range from a soldier's initial arrival and random assignment at a replacement depot through a variety of combat and support duties interrupted by brief interludes of rest and relaxation that broke either the terror or the tedium that represented the polarization of life in Vietnam. Finally, the editors move full circle by introducing the reader to the disillusionment that confronted many veterans home from the war.

The anthology focuses on three essential themes. First, it emphasizes the vast differences that separated the experiences of the individual soldiers who served in Vietnam. Duty in the central highlands with a combat infantry unit, for example, contrasted markedly with duty in a support unit in Saigon.

Second, the elements challenged infantrymen with the ferocity that equalled that of the enemy. Most veterans, even after nearly 20 years, remember graphically the constant wetness, the furnace-like heat, and the scorching sun that set and defined the war's stage.

Finally, the selections in this book reemphasize just how tough the war was, tough enough, in the words of one infantry sergeant, that a man would trade an arm to get home alive.

Time tends to obscure the hardship, terror, boredom, and disappointment that made Vietnam similar to all other wars. Politics and ideology briefly obscured the effort and sacrifice with which most Americans faced those hardships and challenges. During a



conflict some termed a war without heroes, there emerged warriors the equal of any American infantryman who ever laid stock to shoulder in anger.

In this book, the darker side also emerges, for Vietnam did not lack for the cowards, opportunists, and incompetents that have plagued societies as well as armies since time immemorial. Veterans will recognize these caricatures of the small minority that only slightly flaw the dominant theme of courage, sacrifice, and dedication that permeate these pages.

This anthology tells the story of those who served rather than directed. Infantrymen may review the material and assess their readiness in the stark light of Vietnam viewed and remembered.

---

**THE ANTAGONISTS: A COMPARATIVE COMBAT ASSESSMENT OF THE SOVIET AND AMERICAN SOLDIER**, by Richard A. Gabriel (Greenwood Press, 1984. 208 Pages). Reviewed by Major Don Rightmyer, United States Air Force.

The thought probably occurs periodically to every U.S. fighting man: How would I stack up in combat against my Soviet counterpart? How do my training, my lifestyle, my attitudes, and the leaders both above and below me prepare me for that potential encounter on a battlefield somewhere in the world? Where does the U.S. Army stand today in comparison with the Soviet Army in combat capabilities?

Richard Gabriel tries to provide some insights into these questions through the pages of this book. He begins by examining the two armies, and he characterizes the Soviet force as very much structured along traditional European lines. Gabriel then looks at the soldiers, the noncommissioned officers, and the officers in both armies.

He depicts the Soviet soldier as better educated and more intelligent, better trained, and subject to far tighter discipline than his U.S. equivalent. Gabriel feels that today's U.S. soldier, in fact, is far less capable than the U.S.

soldier of the Vietnam era.

He feels that in its ranks of noncommissioned officers, the U.S. Army has many problems in leadership and training, but that the Soviets have not been able to establish a viable career NCO corps. Thus, many junior Soviet officers perform duties that an NCO would normally carry out.

Both armies, according to Gabriel, are officer-heavy. He feels that the ideal officer strength should be about five to six percent of the total troop strength compared to 11 percent in the U.S. Army and about 17 percent in the Soviet Army. Much of his analysis of the U.S. officer corps is based on the experiences of U.S. officers in Vietnam, and he does not feel there has been much improvement since then.

In the final analysis, Gabriel is unwilling to draw any conclusions about which side would come out the winner in any confrontation. He provides many interesting comments on our own Army's shortcomings but very little on the way we might do things differently. His is a thought-provoking work that should receive attention from generals, officers, and noncommissioned officers throughout the Army.

---

**SOVIET ARMED FORCES REVIEW ANNUAL: VOLUME 7, 1982-1983**. Edited by David R. Jones (Academic International Press, 1984. 490 Pages. \$64.50). Reviewed by Alexander S. Birkos, Mount Shasta, California.

This latest volume in the SAFRA series continues to reflect a high standard of scholarship and analysis in assessing the Soviet defense establishment from mid-1982 through late 1983.

Although the USSR persists in expanding and modernizing its military forces, the pace appears to be slackening off. The drive for technical modernity in arms and equipment is fully matched by a quest for updated tactics, doctrine, and organizational forms.

As the various contributors to this volume demonstrate in their articles,

the Soviet armed forces have their full measure of internal problems, not the least of which are poor discipline and morale, an ethnic and demographic shift that will challenge Slavic dominance, and an increasingly aging industrial base. Moreover, the Soviet Navy has suffered a rash of accidents and mutinies, now capped by recent, tough doctrinal debates that may portend Admiral Gorskhov's retirement.

From the perspective of a professional military officer, Christopher Jones's article titled "Warsaw Pact Exercises: The Genesis of a Greater Socialist Army?" should prove thought provoking. The Soviets are experimenting with tactical and doctrinal standardization within the Warsaw Pact to achieve a greater level of operational efficiency and coordination between Soviet and non-Soviet units. This trend certainly calls for continued observation and study as it is only one aspect of the Soviet move toward attaining higher combat effectiveness and efficiency.

In addition to its informative articles, this volume contains a chronology of military events, a bibliography, and numerous tables, charts, and statistical data. It is recommended for all Army officers and for scholars of Soviet military affairs.

---

**CRAZY HORSE CALLED THEM WALK-A-HEAPS**, by Neil B. Thompson (North Star Press, 1979. 150 Pages. \$9.95).

**LIFE AND MANNERS IN THE FRONTIER ARMY**, by Oliver Knight (University of Oklahoma Press, 1978. 280 Pages. \$12.95.) Both books reviewed by Captain Harold E. Raugh, Jr., United States Army.

Both of these well-researched books are about the "Old Army," the Regular Army force that from the end of the Civil War in 1865 to Wounded Knee in 1890 was engaged in securing the western plains for occupation and settlement by the white man.

Neil Thompson's book is primarily about the frontier foot soldier, the Infantryman and his way of life. It is

filled with interesting, little-known facts and figures. It includes not only the stories of men, officers, posts, and campaigns but also stories of the events that led up to the Custer massacre in 1876. It was this "notorious" battle, according to Thompson, that shocked the Army's bureaucracy and officials out of their entrenched complacency and forced them to seek improvements in the Army's training, living standards, and tactics, all of which eventually resulted in the genesis of the modern Army. Many photographs and line drawings, a comprehensive 15-page bibliography, and complete endnotes complement the book's readability and provide numerous references for further research.

On the other hand, Oliver Knight's book begins where hard facts end. This book tells of the social values, lifestyles, atmosphere, and detailed daily routines of the frontier army. Based on the writings of Captain Charles King, with some of the details filled in by the few existing memoirs from that period, Knight creates an interesting social history.

King served in the Army from 1866 until disabled by wounds in 1879, serving almost all of the last 10 years of his service campaigning on the frontier. He wrote 29 full-length

novels about soldiering in the West, most of them about places and events he knew of personally, and one non-fiction work, *Campaigning with Crook*.

By taking numerous episodes from King's books, supplementing them with the material from the published memoirs, Knight has admirably reconstructed the little-known social and routine life of the frontier army. This is the kind of information seldom found in official histories and documents, and it serves to illuminate the human side of military history.

These books complement each other nicely and should be considered indispensable reading for the "Old Army" enthusiast.

---

**SURGEON ON IWO: UP FRONT WITH THE 27th MARINES.** By James S. Vedder (Presidio Press, 1984. 226 Pages. \$15.95). Reviewed by Captain F.R. Hayse, United States Army.

On 19 March 1945, the 3d, 4th, and 5th U.S. Marine Corps divisions attacked the Japanese-held island of Iwo Jima; the planners claimed the whole operation would take only four days — two to capture the island, a

third to eliminate the remnants of the enemy forces, and a fourth to load the assault forces on their ships for movement to Okinawa.

Thirty-two days later, the remnants of the task force, which had suffered 24,800 casualties in its attack on an island barely 9,500 yards long and 4,500 yards wide, were finally able to secure Iwo Jima and sail for Okinawa.

The author of this book was a U.S. Navy doctor assigned as the battalion surgeon of the 3d Battalion, 27th Marines, a part of the 5th Marine Division, during his unit's 32-day ordeal on Iwo Jima. Doctor Vedder's forward aid station treated about 800 casualties; the 3d Battalion itself lost more than 700 of its original 963-man force.

Vedder's book, like many such personal combat narratives, is a story of individual fear and valor, of hardship, error, comedy, despair, hope, and death. It is the story of "green" Marine units getting "blooded" in their first battles; of individual initiative and common sense solutions to seemingly impossible situations; of the importance of unit spirit and cohesion; of the silliness of trying to enforce bureaucratic garrison regulations amid the turmoil of the battle-



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field; and of the casualties that are the inevitable result of high level political maneuvering in wartime.

But unlike many similar books, Vedder's is a story of combat actions interestingly told from the perspective of a medical officer and not a grunt, one that gives the reader a personal look at the battle from someone who had access to the reasoning behind the decisions made at battalion and regimental levels. More important, it shows what seems to be the American way of war — large groups of green or not quite trained troops with lots of new equipment, being led into battle against a veteran enemy by a few experienced officers and noncommissioned officers.

Readers should find Vedder's book a different type of narrative, one that is new and interesting as well about a now-famous battle.

#### RECENT AND RECOMMENDED

**BLACKS IN THE AMERICAN ARMED FORCES, 1776-1983: A BIBLIOGRAPHY.** Compiled by Lenwood G. Davis and George Hill. Greenwood Press, 1985. 232 Pages. \$35.00.  
**PHOTOHISTORY OF TANKS IN TWO WORLD WARS.** By George Forty. Sterling, 1985. 190 Pages. \$17.95.  
**FIGHTING MACHINES OF WORLD WAR II.** By B.T. White. Sterling, 1985. 127 Pages. \$14.95.  
**DON'T CRY FOR US.** By Ralph E.G. Sinke, Jr.

Illustrated by W.P. Wass. Regs Enterprises, 1984. 124 Pages. \$12.95.  
**THE AR15/M16: A PRACTICAL GUIDE.** By Duncan Long. Paladin Press, 1985. 160 Pages. \$17.95, Softbound.  
**TRUPPENDIENST-TASCHENBUCHER, BAND 3: FREMDE HEER: DIE ARMEEN DER NATO-STAATEN.** VIENNA: Verlag Carl Ueberreuter, 1984. 704 Pages. \$195, Softbound.  
**BARBAROSSA: THE RUSSIAN-GERMAN CONFLICT, 1941-45.** By Alan Clark. A Reprint of the 1965 Edition with a New Preface by the Author. William Morrow, 1985. 522 Pages. \$12.95, Softbound.  
**THE U.S. GOVERNMENT AND THE VIETNAM WAR, PART II.** S/N 052-070-06002-6. U.S. Government Printing Office, 1985. 440 Pages. \$10.00, Softbound.  
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**SUTHERLAND'S WAR.** By Douglas Sutherland. David and Charles, 1985. 184 Pages. \$16.95.  
**SOVIET SPACE PROGRAMS: 1976-1980, UNMANNED SPACE ACTIVITIES.** Government Printing Office, 1985. S/N 052-070-06029-8. 396 Pages. \$8.50, Softbound.

**STORMING HITLER'S RHINE: THE ALLIED ASSAULT, FEBRUARY-MAY 1945.** By William B. Breuer. St. Martin's Press, 1985. 308 Pages. \$18.95.  
**ALL THE U.S. AIR FORCE AIRPLANES, 1907-1984.** By Andrew W. Waters. Hippocrene Books, 1985. 413 Pages. \$14.95.  
**YES, YOUR EXCELLENCY.** By V.E.O. Stevenson-Hamilton. London: Thomas Harmsworth, 1985. 229 Pages.  
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**THE CIVIL WAR QUIZ AND FACT BOOK.** By Rod Gragg. Harper and Row, 1985. 210 Pages. \$8.95, Softbound.  
**JOHN MASEFIELD'S LETTERS FROM THE FRONT, 1915-1917.** Edited by Peter Vansittart. Franklin Watts, 1985. 320 Pages. \$18.95.  
**ROME'S ENEMIES: GALIC AND BRITISH CELTS.** Text by Peter Wilcox. Color Plates by Angus McBride. Osprey, 1985. Men-at-Arms Series #158. 48 Pages. \$7.95, Softbound.  
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**THE HEIGHTS OF COURAGE: A TANK LEADER'S WAR ON THE GOLAN HEIGHTS.** By Avigdor Kahalani. Greenwood Press, 1984. 198 Pages. \$27.95.  
**OUTRAGEOUS FORTUNE: THE TRAGEDY OF LEOPOLD III OF THE BELGIANS, 1901-1941.** By Roger Keyes. David and Charles, 1985. 521 Pages. \$32.00.  
**THE ENIGMA WAR.** By Jozef Garlinski. Scribner's, 1980. 219 Pages. \$14.95.

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# I AM THE INFANTRY

**EDITOR'S NOTE:** The epic poem "I Am the Infantry" first appeared in the July 1956 issue of the Infantry School Quarterly, the forerunner of *INFANTRY Magazine*, pages 56-57. Since then it has been modified several times and is used in numerous ways at the Infantry Center and

---

School. It is printed on graduation programs, for example, and a dramatic taped version with life-sized figures of infantrymen over the years is presented. Here is the latest official version of the poem.

I am the Infantry — Queen of Battle! For two centuries I have kept our Nation safe, purchasing freedom with my blood. To tyrants, I am the day of reckoning; to the suppressed, the hope for the future. Where the fighting is thick, there am I...I am the Infantry! FOLLOW ME!

I was there from the beginning, meeting the enemy face to face, will to will. My bleeding feet stained the snow at Valley Forge; my frozen hands pulled Washington across the Delaware. At Yorktown, the sunlight glinted from the sword and I, begrimed and battered, saw a Nation born.

Hardship and glory I have known. At New Orleans, I fought beyond the hostile hour, showed the fury of my long rifle...and came of age. I am the Infantry!

Westward I pushed with wagon trains...moved an empire across the plains...extended freedom's borders and tamed the wild frontier. I am the Infantry! FOLLOW ME!

I was with Scott at Vera Cruz...hunted the guerrilla in the mountain passes...and sealed the high plateau. The fighting was done when I ended my march many miles from the old Alamo.

From Bull Run to Appomattox, I fought and bled. Both Blue and Grey were my colors then. Two masters I served and united them strong...proved that this nation could right a wrong...and long endure. I am the Infantry! FOLLOW ME!

I led the charge up San Juan Hill...scaled the walls of old Tientsin...and stalked the Moro in the steaming jungle still...always the vanguard. I am the Infantry!

At Chateau-Thierry, first over the top, then I stood like a rock on the Marne. It was I who cracked the Hindenburg Line...in the Argonne, I broke the Kaiser's spine...and didn't come back till it was "over, over there." I am the Infantry! FOLLOW ME!

A generation older at Bataan, I briefly bowed, but then I vowed to return. Assaulted the Afri-

can shore...learned my lesson the hard way in the desert sands...pressed my buttons into the beach at Anzio...and bounced into Rome with determination and resolve. I am the Infantry!

The English channel, stout beach defenses, and the hedgerows could not hold me...I broke out at Saint-Lo, unbent the Bulge...vaulted the Rhine...and swarmed the Heartland. Hitler's dream and the Third Reich were dead.

In the Pacific, from island to island I hopped...hit the beaches and chopped through swamp and jungle...I set the Rising Sun. I am the Infantry!

In Korea, I gathered my strength around Pusan...swept across the frozen Han...outflanked the Reds at Inchon...and marched to the Yalu. FOLLOW ME!

In Vietnam, while others turned aside, I fought the longest fight; from the Central Highlands to the South China Sea I patrolled the jungle, the paddies, and the sky in the bitter test that belonged to the Infantry. FOLLOW ME!

Around the world, I stand...ever forward. Over Lebanon's sands, my rifle steady aimed...and calm returned. At Berlin's gates, I scorned the Wall of Shame. I spanned the Caribbean in freedom's cause, answered humanity's call. I trod the streets of Santo Domingo to protect the innocent. In Grenada, I jumped at Salinas, and proclaimed freedom for all. Duty called, I answered. I am the Infantry! FOLLOW ME!

My bayonet...on the wings of power...keeps the peace worldwide. And despots, falsely garbed in freedom's mantle, falter...hide. My ally in the paddies and the forest...I teach, I aid, I lead. FOLLOW ME!

Where brave men fight...there fight I. In freedom's cause...I live, I die. From Concord Bridge to Heartbreak Ridge, from the Arctic to the Mekong to the Caribbean...the Queen of Battle!

Always ready...then, now and forever. I am the Infantry! FOLLOW ME!



## INVOCATION TO THE INFANTRY

Long years ago,  
Before man had learned to fly  
Or even sail the Seas.  
On the bloody field of man's first battle,  
There was born the Infantry.

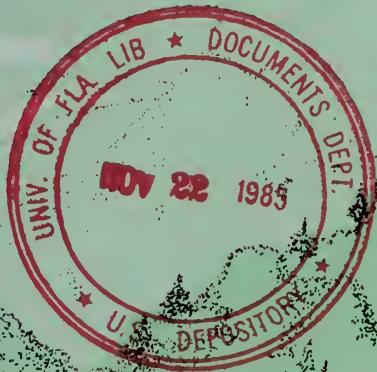
And once again  
On the broad plain of Armageddon,  
On the grand day of Rangarok,  
When all the machines have died,  
And naked steel and the human will  
Will take the day,  
There you will find the Infantry.  
God bless the Infantry!  
Queen of Battle!  
Long may she reign!

*Sergeant First Class Kevin Burns  
Company B, 5th Battalion, 16th Infantry  
Fort Riley, Kansas*



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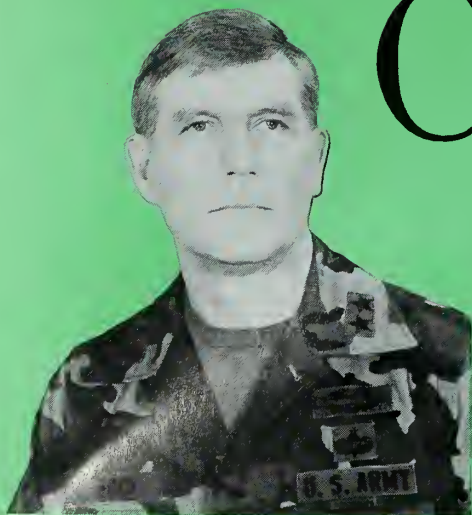
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# Commandant's NOTE



**Major General John W. Foss**  
Chief of Infantry

## INFANTRY SMALL ARMS AND MARKSMANSHIP TRAINING

Infantry units accomplish their missions on the battlefield through a combination of fire and maneuver. When we think of fire we often think of a high volume of fire from one of the many supporting arms of our combined arms team. But in doing this we should not forget that our infantry squads and platoons will often live or die on the basis of their ability to place their own accurate fire on the enemy.

Our Infantry heritage has been based upon the individual soldier and his small arms. These small arms now include the M16A1 rifle, soon to yield to the product-improved M16A2 rifle; the M249 squad automatic weapon (SAW); and the M60 machinegun.

These fine weapons will do us little good, however, if our infantry soldiers are not crack shots. Therefore, one of the first things we as infantry leaders must do is to emphasize marksmanship training at all levels. The Infantry School has taken several steps to ensure that our small arms marksmanship training is given the priority it deserves, both in the school and in the field.

Good marksmanship, of course, starts with a solid basic rifle marksmanship (BRM) program. At the Infantry School, we have just completed a comprehensive study of the present BRM program and are now validating an improved version of it. The new program will stress precision shooting and downrange feedback and will place more emphasis on the fundamentals of marksmanship and dry fire. To do this properly, we have set higher standards that soldiers must meet before they go on to the next firing event. For example, the new BRM program requires our soldiers to qualify at night and under NBC conditions.

We have modified the standard trainfire qualification course to include a third position—the kneeling unsupported—and

have added more long-range targets (250 meters or more) to take advantage of the M16A2's capabilities.

We have also revised the advanced rifle marksmanship (ARM) training program, which is taught only to infantrymen in OSUT. We have added to this program a moving target scenario, an increased night firing requirement, and a squad firing exercise. Long range firing will be added for the current M16A1 rifle and even longer range firing will be added as more M16A2 rifles become available.

This brings me to the important subject of rifle zero. We have found that many of our soldiers do not know how to zero their rifles properly. Because they do not, many of their other firing activities amount to a waste of time and bullets, neither of which is plentiful. Admittedly, the 25-meter zero is the current method of initially obtaining a battlesight zero. It is still an expedient method. Firing at 25 meters was never meant to take the place of a standard course of fire, though, so battlesight zero must be confirmed at the longer ranges.

None of this is totally new; we understand that. But over the years, we have let down woefully in our marksmanship training and have allowed far too many of our basic marksmanship skills to atrophy. Downrange feedback, for instance, was routine when we used the old known-distance (KD) ranges. Even though many Infantrymen feel we should go back to those ranges, there are other ways to get the feedback our soldiers need—technology and our trainfire ranges can serve the same purpose. The important thing is to give each firer precise feedback on where his bullets are striking the target so that he can adjust his sights or aim as necessary.

As part of our increased emphasis on marksmanship skills, we will propose having one qualification course for most soldiers and another, more demanding course for infantrymen.

After all, infantrymen fire their weapons for a living. This latter course would be an outgrowth of our beefed-up BRM and ARM programs and would go a long way toward reinforcing the preeminence of the U.S. infantryman on the battlefield.

The revitalization of marksmanship training requires that we also develop programs to sustain the new soldier's skills when he gets to a unit. An important ingredient in unit sustainment is command emphasis and leader training. We at the Infantry School have therefore developed marksmanship training programs for our leader courses. We have included these training programs in the Infantry Officer Basic and Advanced Course curricula and eventually will add them to our Basic and Advanced NCO Courses.

This leader training includes more than just weapon qualification periods. It is designed to train our leaders in training techniques that will enable them to evaluate the marksmanship skills of a unit, develop a training program to upgrade them, and then implement the program.

As an aid to commanders, the Infantry School is also developing a master marksman program for noncommissioned officers, the goal of which will be to train experts in small arms marksmanship on a variety of infantry weapons. The highly skilled NCOs who complete this program will have come from units and will return to their battalions to help design training programs and train other NCOs to be effective marksmanship instructors.

In addition to these efforts, we have produced several aids for leaders to use in their rifle marksmanship training. Field Circular 23-11, Unit Rifle Marksmanship Training Guide, August 1984, is an excellent reference manual on proven methods, and every company should have a copy. (This manual will be revised.) We have also produced two TV tapes—"Teaching Rifle Marksmanship," Part 1 (Number 2E/010-071-1685-B) and Part 2 (Number 2E/010-071-1826-B)—that demonstrate the step-by-step techniques of teaching basic shooting skills. (See *INFANTRY*, March-April 1985, page 7.)

The good shooting skills infantrymen learn for use with their rifles will carry over to other small arms and weapons as well. The best riflemen in a unit should be identified as the automatic weapon gunners, and training on the SAW and the M60 machinegun should receive equal emphasis with the rifle in a unit's marksmanship training program. The best riflemen will probably also be the best Bradley gunners.

In the SAW, we now have the first true squad automatic rifle since the Browning Automatic Rifle (BAR) passed out of the inventory. The SAW has a GO/NO GO phase in its qualification exercise as did the BAR. The BAR marksmanship program consisted of two trainfire style exercises. The

first was the transition course in which the firer engaged point targets at ranges of 150 to 500 yards. Area targets were presented to him at 200, 300, and 400 yards. The second exercise was a quick-fire course with targets presented to the firer at ranges of 25 to 330 yards.

Our SAW qualification program has 10-meter firing (using the standard 10-meter M60 machinegun target) as its GO/NO GO phase. The extended range portion of the program calls for bipod firing at point targets at ranges from 100 to 600 meters and at an area target at 800 meters from the firing line. The addition of the 600- and 800-meter targets, a recent change to the SAW qualification program, is consistent with the range of the weapon. The accuracy, range, and penetration of the new SAW ammunition can give every SAW gunner the potential punch of a machinegun team. In fact, in September and October 1984, the Infantry Board conducted a test that confirmed the fact that the M249's accuracy is comparable to that of the M60 machinegun. (See *INFANTRY*, July-August 1985, page 10.) Whether or not we will replace the M60 is still under consideration and discussion.

As we continue our efforts to give the infantryman the best possible equipment, we are evaluating the configuration and use of new optics or day/night sights in our enhanced M16A2 program. If these tests prove that modified rifles with scopes are practical, it will mean a significant increase in the probability of hits by a trained rifleman at extended ranges. These sights will also have the potential for simplifying basic rifle marksmanship training, which would be another step toward giving the infantryman an opportunity to influence the battle at increased ranges.

As for the future, the advanced combat rifle (ACR) will make aiming faster and training easier. We expect that it will also be more reliable and easier to maintain than any weapon we have had to date. Technological improvements are being investigated that will allow the rifleman a much greater probability of hitting his target at all combat ranges. Among them are salvo fire, flechettes, and advanced fire control devices. Also, caseless ammunition in the future may allow us to carry more ammunition with less weight, certainly a priority with any infantryman.

The demand for weapon proficiency and basic marksmanship skills in our infantrymen is as great today as it has ever been. As trainers, leaders, and commanders, we must continue to give them the best equipment and the best training programs we can to insure their success on the modern battlefield.

Infantry soldiers love to fire their weapons, and they want to be good shots. Given that desire and our training programs, we can make the American rifleman of today as feared by potential enemies as he was in the past.



# INFANTRY LETTERS



## BRAVO!

Captain Mark D. Rocke should be highly commended for his excellent article "Training and Administration" (INFANTRY, July-August 1985, page 25). For as long as I can remember, and that goes back a long way, the burden of administration on a company commander has had a detrimental effect on the training of his unit.

All sorts of commanders, staff officers, higher headquarters, and so on have imposed administrative requirements on the unit commander, making it virtually impossible for him to devote most of his effort, time, and thought to his most important job—training his company. No other responsibility should take priority.

Captain Rocke's article provides the company commander with efficient, practical, and time-saving techniques that will help him focus his attention on training, training, and more training.

I hope Captain Rocke's recommendations are included in the curricula of our branch schools, or at the least, seriously considered by those in high levels of command.

Bravo! Captain Rocke.

ROYAL REYNOLDS, JR.  
BG, USA (Retired)  
Arlington, Virginia

## BAYONET STANDARD FOR MARINE INFANTRY

I have been following the bayonet debate in the past several issues of your publication. As your readers may be aware, Marines have a long history of training in the "spirit of the bayonet," and still carry it as standard field gear.

No matter what the logical or theoretical arguments against the bayonet may be in this day of high-tech warfare, the bayonet is still needed by the infantry—

Marine or Army. The mission of the Marine infantry is to "locate, close with, and destroy the enemy by fire and maneuver, and to repel the enemy's assault by fire and close combat. . . ." I assume the mission of Army infantry is similar.

While the Army is (or seems to be) training primarily to fight the Warsaw Pact in Europe, it is also giving more thought to low- and mid-intensity conflict. No matter what the intensity of conflict is, infantrymen will still be involved in some very *high*-intensity combat. Whether against highly trained troops or guerrillas, there are still going to be battles, especially at night, in which a bayonet may make a difference.

In the Vietnam war there were several verified instances in which infantry Marines fought off determined assaults to the point of using bayonets and entrenching tools. Army personnel can read of one of those battles in a book by Army Colonel (Retired) Dandridge M. Malone, *Small Unit Leadership: A Commonsense Approach*. I am certain that at some time during the Vietnam war at least one Army unit found itself in a similar situation.

The life of even one infantryman saved in combat may make a difference in the outcome of a skirmish, and it will certainly make a difference to that soldier.

I do not advocate rows of infantrymen charging a hill, bayonets fixed, as in days

of old. But the bayonet is an inexpensive, cost-effective, versatile piece of equipment that should not be neglected. And the aggressive spirit that is taught in bayonet training is an asset to any infantry unit.

WAYNE P. WILCOX  
1st Lt., USMC  
Lorton, Virginia

## THREE KINDS OF INFANTRY

I enjoyed the article by Colonel Huba Wass de Czege on "Three Kinds of Infantry" in the July-August 1985 issue of INFANTRY (page 11). This article represents the kind of clear and innovative thinking the Army has come to expect from Colonel Wass de Czege. I would like to offer a few comments.

Colonel Wass de Czege is right on target in his description of the missions and nature of armored infantry and regular infantry. We should think of armored infantry (along with the main armor forces, of course) as the primary instrument for exploitation, pursuit, and deep maneuver. The overriding goal of armored infantry is to ensure that the tank forces are protected and that they can keep moving. Although armored infantry may have to fight dismounted, it is most effective when it remains mounted, since the advance of the tank forces is slowed to foot-pace when the armored infantry dismounts.

Squad organization in armored infantry is necessarily different from that of the regular infantry. (For one thing, armored squads are smaller.) Armored infantrymen, I think, should also be armed differently—primarily with submachineguns like their tanker cousins. Armored infantry commanders must be offensive minded and must be operationally oriented (instead of tactically).

If the armored infantry is the lance,

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then perhaps it is correct to think of the regular infantry as the mace and shield. Regular infantry is tactically oriented for the most part. It suffers the heaviest blows, is given the most onerous tasks, and is more likely to become involved in positional, attrition-style warfare.

As Colonel Wass de Czege notes, regular infantry supported by tanks creates the penetration and holds the shoulders in order to break the armor formations free into the enemy's rear. Well-suited for holding ground in all but the most difficult terrain, regular infantry absorbs the enemy's main attacks and shields the armor for counterattacks.

Tenacious on the defense, dogged in the offense, regular infantry depends heavily on artillery and tank support. I would add that the vehicles in which the regular infantry moves must be artillery-resistant.

I disagree slightly with Colonel Wass de Czege's description of light infantry. In mid- and high-intensity warfare, the number of light infantry units in theater should be kept small. Light infantry should *never* be used in roles where armored and regular infantry will suffice.

Many of the tasks Colonel Wass de Czege prescribes for light infantry—defending in rugged terrain, freeing other forces to become operational reserves, holding chokepoints—can be performed just as well by regular infantry and should be. Light infantry can hold ground, but such a mission does not take advantage of its best qualities.

Instead, light infantry should be directed to objectives that take advantage of its particular skills in speed, shock, surprise, and violent but limited offensive action, most often against the enemy's flanks and rear. Light infantry hits hard, unexpectedly, then slips away. It is the commander's stiletto. As such, it should be employed only under special conditions.

Colonel Wass de Czege's discussion seems to center on mid- to high-intensity warfare. It is worth noting that armored infantry has little or no utility in low-intensity conflict. Regular and light infantry, conversely, are well-suited for low-intensity conflicts, where they complement each other well.

I would like to suggest that the artillery

reconsider its own organization in light of "Three Kinds of Infantry." Just as we need one infantry organized and trained for exploitation and deep maneuver and another prepared to slug it out dismounted, so we need one artillery type organized and trained to accompany and support armor spearheads and another prepared to support the regular infantry-armor team in the main battle area. These two separate functions require artillery organizations with substantially different capabilities and orientations. But this is the subject of another article.

SCOTT R. McMICHAEL  
MAJ, Field Artillery  
Combat Studies Institute  
Fort Leavenworth, Kansas

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### TAKES OFFENSE

My unit, the 1st Battalion, 315th Infantry, takes offense at Captain Tony N. Wingo's article in your May-June 1985 issue (p. 42).

Throughout the article, Captain Wingo refers to "RC" units that do not train the middle weekend of their annual training period. It should be pointed out that only National Guard units do not train the middle weekend. Army Reserve units have been training throughout their annual training period for years.

In the case of our battalion, we go directly to the field and return to cantonment at the last possible minute. We train as we intend to fight.

NEAL J. CORMIER  
CPT, Infantry, USAR  
Bristol, Pennsylvania

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### SOME DON'T, BUT SOME DO

In response to Captain Wingo's article "Extended FTX for RC Units" (May-June 1985, p. 42), I would like to make a few comments.

He makes some good points about the tendency of RC units to fail to rearm, refuel, and repair forward, and about the typical schedule—7 days on, 2 days off on the middle weekend, then 6 days on. In the 32d Separate Infantry Brigade

(Mechanized), Wisconsin Army National Guard, this calendar of events has not been the case for at least the past four annual training (AT) periods.

During AT 1982, 1983, and 1984, I served as assistant intelligence sergeant for the brigade, and on each of these AT periods we went to the field on Sunday or Monday after arriving and remained tactical for nine or ten days.

AT 85 brought a new challenge to the troops of the brigade. Most of one mechanized infantry battalion and parts of the other were airlifted to AT by C-130 aircraft to a tactical airstrip on Saturday. They footmarched to a marshalling area and spent Sunday in pre-combat inspections and a move to a tactical assembly area where units were task-organized. From the first Monday through Tuesday of the second week, battalion task force-on-task force operations were conducted.

All of AT 85, including the move to the AT site with A and B bags and Alice packs, the sustaining operations, the move directly to the field, was a dress rehearsal for ODT-86. The 32d Brigade will be the largest RC unit ever to deploy outside the continental United States in peacetime, complete with equipment, to participate in REFORGER 86.

This brigade takes very seriously its role in the total force. We have enjoyed some excellent relationships over the past decade with the Big Red One and now with the 5th Infantry Division (Mechanized).

The Active Army and National Guard combat units have their own unique, inherent strengths and weaknesses (which could be the subject of an article in INFANTRY), but we all strive for a state of readiness that will hopefully make unnecessary the ultimate comparison of the two.

RONALD D. HOLMES  
SFC  
Appleton, Wisconsin





# INFANTRY NEWS



DURING THE PAST SEVERAL MONTHS we have been receiving requests for information about the various classes taught at the Infantry School—start dates, for example, and end dates for such courses as OCS, ANCOC, IOBC, and IOAC.

We would be happy to furnish, on request, schedule information on particular courses. Please address your request to Editor, INFANTRY, P.O. Box 2005, Fort Benning, GA 31905-0605, or call AUTOVON 835-2350 or commercial 404/545-2350.

THE 29TH INFANTRY REGIMENT/WEAPONS DEPARTMENT, formed at Fort Benning late last year, is responsible for the training and support of the U.S. Army Infantry School (US-AIS), the U.S. Army Infantry Training Center (USAITC), and the U.S. Army School of the Americas (USARSA).

The Regiment/Department was formed from a reorganization of the Weapons, Gunnery, and Maintenance Department of the Infantry School; the USAITC's Infantry Training Group; the 1st Battalion, 29th Infantry; and the 11th Company of The School Brigade. The new organization assumed the combined missions of the original four elements and is now proponent for infantry weapon systems and land navigation.

The Regiment/Department is composed of two battalions. The five companies in each battalion have functionally combined instructors, subject matter experts, and training equipment. Of the ten companies, five have been designated companies/committees of the Weapons Department and are the proponents for specific infantry weapon systems.

Because of their unique missions, the BIFV New Equipment Training Team (NETT) and the Maintenance Management Division (MMD) of the WGMD

have been retained intact.

To make sure Army agencies and units in the field know where the functions of

the old WGMD are now being performed at Fort Benning, a directory is provided here. (All numbers are AUTOVON.)

<b>REGIMENT/DEPARTMENT HQ</b>	<b>784-6008/6864</b>
<b>BIFV NETT</b>	<b>835-5510/1336</b>
<b>Maintenance Management Division</b>	<b>784-7214/7363</b>
<b>1st Bn, 29th Inf/BIFV-Mortar Division</b>	<b>784-4060/3612</b>
<b>Co A (OSUT BIFV Training)</b>	<b>784-1917/3613</b>
<b>Co B (Mortar Committee)</b>	<b>784-2916/1450</b>
<b>Co C (Land Navigation Committee)</b>	<b>835-4476/7336</b>
<b>Co D (BIFV Committee)</b>	<b>784-1446</b>
<b>2d Bn, 29th Inf/Antiarmor-Small Arms Division</b>	<b>784-6742/6819</b>
<b>Co A (Mech Spt/OSUT Training)</b>	<b>784-6033/6260</b>
<b>Co B (Antiarmor Committee)</b>	<b>784-6474</b>
<b>Co C (Small Arms Committee)</b>	<b>784-6221</b>
<b>Co D (OSUT Tactical Training)</b>	<b>784-6006</b>

Additional information on the Regiment/Department can be obtained from the 29th Infantry Regiment/Weapons Department, ATTN: ATSH-JN-S3, Fort

Benning, GA 31905-5598; AUTOVON 784-6020. (A hotline will be established soon for 24-hour operation using that same number.)

FIELD CIRCULAR 22-5, DRILL AND CEREMONIES, dated September 1985, has been distributed to all company-sized Army units. This field circular supersedes Field Manual 22-5, October 1984.

Individuals and units who want to recommend changes to the FC are asked

to use DA Form 2028, Recommended Changes to Publications and Blank Forms, and to direct them to the address shown in the FC.

The new Field Manual 22-5 is expected to be available during the first quarter of Fiscal Year 1987. (See INFANTRY, May-June 1985, page 6.)

THE DIRECTORATE OF TRAINING AND DOCTRINE has established an ARTEP Mission Training Plan (AMTP) hotline at AUTOVON 835-AMTP (2687) or commercial 404-545-AMTP. Units involved in the AMTP field trials are encouraged to use this hotline to leave messages pertaining

to the Infantry School's prototype AMTP 7-247J-10 (Mechanized Infantry Platoon and Squad) and the supporting drill manual, Field Circular 7-21.

Units not directly involved in the AMTP field trials may also use this line to comment on or ask questions about any other USAIS ARTEP product. The Col-

lective Training Branch, Training Division, DOTD, will return your call within two working days.

Callers who need immediate information on the AMTP or other ARTEP products, except for light infantry division (LID) products, should call AUTOVON 835-4848/1317. Comments or questions about LID products that require immediate responses should be addressed to the Light Infantry Task Force at AUTOVON 835-5298/5620.

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THE INITIAL CONTRACT for the new 9mm Beretta pistol was awarded recently. This contract is for the first increment of 315,930 weapons, which will replace some of the Army's current .45-caliber and .38-caliber pistols. (See *INFANTRY*, May-June 1985, page 6.)

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THE DIRECTOR OF THE National Infantry Museum has given us the following news items:

The Museum has recovered portions of two World War II U.S. CG4A gliders from a wooded area in rural Douglas County, Georgia. When they were manufactured during the war years, the fragile gliders were delivered from the factories in large wooden packing boxes. Because of an acute shortage of building materials after the war, surplus gliders often were purchased for the wooden boxes; the gliders were usually discarded. These particular gliders had been purchased for that reason by a Douglasville mortician.

A CG4A glider is an extremely rare find today, and the portions collected represent a valuable addition to the Museum's collection. As funds become available, the Museum's staff hopes that at least one of the gliders can be restored for display.

The Museum has been given a large group of military artifacts that belonged to the late General William H. Simpson. The group includes medals and decorations, uniform items, and the flag of the Ninth U.S. Army, which General Simpson commanded in Europe in 1944 and 1945. The Ninth Army participated in some of the heaviest fighting of World War II. General Simpson was a 1924

graduate of the Infantry School.

Articles relating to the military career of the late Major General Philip H. Draper, Jr., have also been given to the Museum, while the family of the late Private Henry Clay Davis, a World War I infantryman from Georgia, has presented a group of his uniform items. The items include breeches, belt, puttees, overseas hat, dog tags, and coat with First Division insignia and overseas and discharge stripes.

Private Davis's uniform had been carefully preserved and had been worn through the years with pride by the former doughboy at patriotic rallies and parades. His daughter, who presented the items, said: "He told us of one battle where, before the fighting started, there were flowers and green grass. After the battle, he said, everywhere you looked there were dead mules and men."

A guidon from Headquarters and Headquarters Company, 513th Parachute Infantry Regiment, which was carried during Operation VARSITY (the jump across the Rhine River in March 1945), has been given to the Museum and placed on display. A World War I pennant of the 359th Infantry Regiment has also been added to the collection.

A Beretta automatic pistol from World War II has been placed in the arms collection. The donor, who served on USS LCI 590, picked up the pistol on the beaches of southern France during the 1944 Allied invasion.

The foreign collection has been expanded by a gift from the French Government of four contemporary French uniforms—Foreign Legion, tanker, alpine, and paratrooper. The Foreign Legion uniform is on display in the Museum's French Gallery.

A cut-away of the Dragon antiarmor system and a large lighted photograph showing the Dragon in operation were recently given to the Museum by the Raytheon Company, manufacturers of the Dragon.

Work on the Museum's new Heraldry Room is under way. The Director expects that each infantry regiment will be represented by its insignia. The room will trace the evolution of U.S. Army insignia from 1775 to the present.

The National Infantry Museum Men-

tors, volunteer tour guides, have completed their first year of service to the Museum and to the public. The Mentors have broadened the Museum's outreach to the public by sharing their warm welcome and their knowledge of the collection with the visitors.

The National Infantry Museum Society, formed at Fort Benning a number of years ago to assist the Museum with financial and volunteer support, is open to anyone who is interested in joining. The cost is \$2.00 for a one-year membership or \$10.00 for a lifetime membership.

Additional information about the Museum and the Society is available from the Director, National Infantry Museum, Fort Benning, Georgia 31905-5273, AUTOVON 835-2958, or commercial 404/545-2958.

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JUNGLE FATIGUES are not permitted in USAREUR. Personnel who are assigned to Europe must make sure that they have several sets of BDUs available for wear immediately upon arrival in Europe.

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THE DIRECTORATE OF COMBAT DEVELOPMENTS has furnished the following news items:

• **Infantry Battalion (Ranger).** Now that the Infantry School has developed a TOE for the Infantry (Ranger)/regimental headquarters, the time has come to reorganize the battalions that are organic to the regiment. (See *INFANTRY*, May-June 1985, page 8.) The reorganization of the infantry battalion (Ranger) will align the battalion with other units organized under the Army of Excellence design criteria.

The reorganized battalion will still consist of a battalion headquarters and headquarters company and three rifle companies, but its overall strength will be slightly less because of the conversion to nine-man rifle squads. The battalion will now be organic to the Ranger regiment and will no longer be a separate unit.

Since this is a living TOE, it will reflect only currently fielded equipment. New items of equipment, scheduled for distribution in the future, will be added to the TOE as incremental change packages.



This means that the unit's TOE and its modified TOE will be more closely aligned.

The draft living TOE for the infantry battalion (Ranger) is scheduled to be reviewed by Headquarters TRADOC this month.

• **Maneuver Control System Battalion Terminal.** The Maneuver Control System (MCS), a full military specification developmental system, has been undergoing testing in USAREUR for more than four years.

The system consists primarily of the Tactical Computer System (TCS) and the smaller Tactical Computer Terminal (TCT). These computers are meant to pass S-3/G-3 information between brigades, divisions, and corps.

Infantry School action officers have been working with the Combined Arms Center and other proponent schools and centers to develop the operational concept for a briefcase-size battalion terminal for use in the MCS. This terminal would increase the timeliness and accuracy of the information flow between a battalion and its higher headquarters.

The new equipment will help reduce voice traffic on FM nets while increasing the amount of operational information passed between headquarters.

• **Combat Bayonet.** The Directorate recently established requirements for the development and fielding of a more practical, utility-type field knife and hand-to-hand combat bayonet. The proposed multi-purpose knife/bayonet would be a considerable improvement over the current single-purpose M7 bayonet.

When used with its scabbard as a wire cutter, for example, it would be capable of cutting barrier material, such as concertina or barbed wire, and could be used for cutting communications and power lines. Or it could be attached to the M16 rifle for its traditional use as a close combat weapon or for use in crowd control during civil disturbances. A sharpening device will be either part of the scabbard or included as a component item.

The initial issue of the new bayonet is expected to go to combat soldiers as a replacement for the current bayonet and scabbard, possibly as early as the first quarter of Fiscal Year 1987.

• **Enhanced M16A2 Rifle.** The Infan-

try School is coordinating the technology and directing the development of an "enhanced" M16A2 rifle. (See INFANTRY, July-August 1985, page 10.) Significant increases in target detection, target acquisition, and target hits at extended ranges and also a capability for quick conversion for use during night fighting will be among the rifle's features.

At the present time, the School foresees no personnel effects and only minor logistical changes, but it does recognize the fact that training concepts and strategies could be greatly affected.

Preliminary testing of prototype developmental hardware is scheduled to begin at Fort Benning in the second quarter of Fiscal Year 1987.

• **HMMWV.** The high mobility multi-purpose wheeled vehicle (HMMWV) is found in increasing numbers in the Army. In September 1985 the utility variant of the HMMWV began replacing the M151 jeep, the M880 tactical pickup truck, and the M561 Gamma Goat in combat and combat service support roles. HMMWV variants will also replace TOW weapon carriers, armament vehicles, communication vehicles, and ambulance systems as the fielding of the new vehicle continues. (See INFANTRY, September-October 1983, page 5.)

The HMMWV is enjoying a high degree of soldier acceptance because of its 6.2-liter V8 diesel engine, automatic transmission, power assisted steering, and four-wheel independent suspension system. These features provide the soldier with the best handling and ride characteristics ever associated with a tactical vehicle.

• **Improved Sock and Cooling System.** Requirements for a new sock and for a soldier microclimate cooling system were presented by the Infantry School at the Seventh Clothing Advisory Group meeting. These items are scheduled for presentation at the next meeting of the Army Clothing and Equipment Board for final approval of the development concept.

The improved sock, made of state-of-the-art materials, is intended to replace the current olive green wool sock as a companion to the new combat boot.

The microclimate cooling system for

the individual soldier will be a self-contained system weighing no more than 15 pounds. When worn as part of an integrated NBC ensemble, the system will provide a means of dissipating the body heat generated by physical exertion or stress in ambient temperatures up to 120 degrees Fahrenheit. It will provide a soldier with six hours of independent operation without being recharged or refueled.

THE PRESIDENT OF THE U.S. ARMY Infantry Board furnished the following news item:

• **Individual Drinking Water Flavors.** In combat or during extended field exercises soldiers sometimes have to purify their drinking water with iodine or chlorine tablets. Because of the taste of the treated water, some soldiers allow themselves to become dehydrated rather than drink it. Other soldiers, trying to make the water more palatable, put commercial water flavorings into this halogenated water. Unfortunately, ingredients in some of these commercial mixes negate the purifying effects of the disinfectants.

To encourage individual soldiers to voluntarily drink more fluids, Natick Research and Development Center (NRDC) developed a water flavoring that was designed to be better tasting and to be microbiologically compatible with halogenated water. The Infantry Board conducted a customer test of this flavoring for NRDC in September 1983. (See INFANTRY, January-February 1984, page 5.)

Two series of IDWF are being developed, one for hot, the other for cold regions. Three to six flavors will be developed to provide a variety of choices to meet individual preferences. The flavors and degrees of sweetness or intensity will be designed to encourage voluntary drinking. The flavorings are expected to be individual demand items available through unit supply channels. Nine individually wrapped packets of IDWF, to be used on the basis of one to a one-quart canteen, would be provided as a one-day supply in a waterproof package weighing less than eight ounces and measuring less than ten cubic inches.

The Infantry Board conducted an Operational Test I of the IDWF at Fort Benning between 22 July and 23 August 1985. More than 300 one-station-unit-training soldiers took part in the test while undergoing infantry training in a field environment. The daily high temperatures reached at least 85 degrees Fahrenheit.

Water was taken from a local creek, processed, halogenated (iodine or chlorine tablets), and furnished in one-quart canteens at the beginning of each day to all test soldiers. The canteens were replenished as necessary. The uncooled water varied from 71 degrees to 98 degrees Fahrenheit. Half of the test soldiers were given a one-day supply of IDWF; the rest used halogenated water only.

The test measured changes in the soldiers' levels of dehydration based on mean daily weight loss for the two groups of soldiers. Data was collected on the soldiers' weight, fluid consumption, and overall acceptance of the flavorings.

The Army's Quartermaster School will use the test results to assist in the independent evaluation of the IDWF for a validation in-process review.

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THE DESERT PHASE of the Ranger Course was recently moved from the desert of New Mexico near Fort Bliss to Dugway Proving Ground in Utah, which offers better desert terrain. The training, otherwise, is unchanged.

After the mountain phase, which is conducted in North Georgia, the Ranger students return to Fort Benning for staging out of Lawson Army Air Field and then fly to Utah. There, the airborne-qualified students execute a mass tactical jump into the desert carrying all the equipment they will need for the next six days. (For details, see "Ranger Desert Phase," by Captain William D. Phillips, *INFANTRY*, March-April 1984, page 10.)

After the desert phase, the students prepare to fly to Florida where they conduct an airborne assault into Eglin Air Force Base and begin their final days of training.

THE FIRST OF A NEW GENERATION of Abrams M1 battle tanks was turned over recently to the Army. Known as the M1A1, the tank has greater firepower, improved computerized fire control, and better crew protection.

The M1A1 has more armor, a 120mm gun in place of the 105mm gun found on the M1 tanks, and an air cycle system to protect the four-man crew from nuclear,



biological, and chemical agents. Mechanical improvements have also been made.

With a 1,500-horsepower turbine engine, the M1A1 can cruise at more than 40 miles per hour on hard surface roads and 30 miles per hour cross country. It can reach a speed of 20 miles per hour in less than seven seconds. It can travel twice the distance of other tanks before needing an engine overhaul, and its engine and transmission can be replaced in less than an hour.

The tank's thermal imaging and laser sighting systems enable the gunner to fire accurately through dense fog, smoke, or dust while the tank is traveling at combat speeds.

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THE NIGHT VISION VIEWER, AN/VVS-2, should be tested before use, the Army's Communications-Electronics Command warns, when the night turns pitch black, stormy, or a combination of the two.

The viewer does not make its own light. It only increases the low-level light available on a normal night. Cloudy nights with no moon or stars will not produce enough low-level light for safe operation, and rain and lightning will distort the already weak image.

If the night is extremely dark or the weather conditions poor, the viewer should be adjusted to its maximum res-

olution. If a driver's view is still limited or distorted, he should stop his vehicle and get some guidance.

The AN/VVS-2 also is a delicate instrument that requires lots of tender care. For example, the viewer should never be exposed to direct sunlight, and the viewer should never be used when lightning is splitting the sky — powerful light can blind the driver. When the viewer is not being used, its head assembly should be kept covered, whether it is stored or mounted. The cover protects the viewer from sunlight. When the viewer is not needed, it should be stored, but first it should be disconnected from its power source and its batteries should be removed to prevent corrosion. Finally, the viewer should never be plugged in when the batteries are in it, because the batteries will explode.

The storage box for the viewer is in a different place in different vehicles. The Bradley doesn't have a storage box as such, so the viewer must be firmly strapped to a storage pad to the left of the driver.

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THE ARMY'S NEW black leather combat boots will be available in military clothing sales stores in June 1986 and will be issued to new soldiers beginning in January 1986. (See *INFANTRY*, September-October 1984, page 6.)

The boots feature padding around the top, speed lacing, improved traction and support, and a replaceable heel. They are designed to be more comfortable, durable, and resistant to water and mildew than the Army's current combat boots.

The new boots will be available in 133 sizes, 22 more than the current boots.

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THE U.S. ARMY REGISTER will no longer be sent automatically to organizations that were on the special distribution list. The Register is now designated DA Pamphlet 600-100, and organizations must request it from the Baltimore Publications Center using DA Form 12-9c.





## The Moral Dimension: The Thoughts of Ardant du Picq

COLONEL RICHARD F. TIMMONS

The first military analyst to pay close attention to human emotions and the "moral effect" they have on warfare was the 19th century French army officer, Charles Ardant du Picq. He was colonel of the 10th Regiment of the Line in 1870 when he was mortally wounded and died soon after the beginning of the Franco-Prussian War. Despite his wide popularity during and after World War I, his name is now hardly recognized by American soldiers, and his writings, therefore, are too often ignored. Yet the moral dimension in warfare is a subject of continuing importance.

Although only a colonel at the time of his death, Ardant du Picq has come to be regarded as a unique military analyst who spent a lifetime trying to understand why men react as they do under conditions of close combat. His intent, through studying ancient and modern battle at the individual point of confrontation, was to establish a doctrinal foundation upon which an army could base its tactics, strategy, weaponry, and plans for the successful application of military force. In this respect he can be closely compared to American Brigadier General S.L.A. Marshall, whose group interview methods immediately following battles during World War II, Korea, and Vietnam sought to discover exactly

what Ardant du Picq pursued. Although separated by a century, these two men drew identical conclusions on many of the same points.

Ardant du Picq was born on 5 November 1821 at Perigueux, France, and at the age of 21 entered the French Military Academy at Saint-Cyr. He graduated two years later and was commissioned a sub-lieutenant in the 67th Regiment of the Line. For the next 26 years he served almost continuously in infantry battalions and regiments posted both in France and overseas.

His first combat experience came with the 9th Battalion of Foot Chasseurs during the Crimean War; he was captured in late 1855 while leading the French column in the final assault on the bastion of Sebastopol. Released in 1856, Ardant du Picq spent the next ten years campaigning in Syria, Algeria, Africa, and Sardinia, for which he received recognition for bravery from France and her allies. In February 1869 he took command of the 10th Regiment of Infantry of the Line, which was committed to combat against the Germans on 22 July 1870. Within a month, Colonel Ardant du Picq was mortally wounded by artillery fire from a German cavalry reconnaissance patrol.

Although his adult life was devoted to

studying individual and small unit combat, Ardant du Picq published very little. In fact, his only in-depth written effort, *Battle Studies*, is actually a compendium consisting of a previously published pamphlet, *Ancient Battle*, printed in 1868; memoirs and several written studies completed in 1865; a well organized collection of notes on the subject of modern battle; and a final project entitled *Study on Combat*, which was published a decade after his death.

Interestingly enough, it may be that Ardant du Picq was the first military analyst to use questionnaires in trying to gather information on individual experiences. He sent out "circulars" to various officers who had undergone the rigors of combat and asked for their thoughts on a wide range of questions. (These form the basis of *Study on Combat*.)

As expressed in his writings, Ardant du Picq's interest was in the soldier's heart and mind, which he considered the dominant aspect of combat. "In all matters that pertain to an army, organization, discipline, and tactics," he said, "the human heart in the supreme moment of battle is the basic factor." He strongly believed that the psychology of soldiering had to be understood first, and from this could be developed "a method

of combat, sanely thought out in advance," that would permit "prescribed tactics conforming to the national character, which may serve to guide an ordinary officer without requiring him to have exceptional ability." In other words, from an understanding of man in combat, the principles of battle would become evident and the avenues to victory in war more apparent to the educated officer.

What makes Ardant du Picq so different from other analysts is that he was willing to venture into a realm that had no scientific basis in his attempt to explain the mechanics of human emotions and their overwhelming importance to the results of battle. For him, "material dynamics" and mathematics were of no consequence, despite what the then popular Henri Jomini had to say.

Instinctively, Ardant du Picq's predecessors had felt the things he sought to explain, and they had sometimes provided faint glimpses from experience, but their feelings and glimpses were unsupported by explanation: the often-quoted Napoleonic observation, for example, that in war "the moral element is to all others as three to one"; or Marshal de Saxe's statement that "the human heart is the starting point in all matters pertaining to war"; or Frederick the Great's comment that "three men behind the enemy are worth more than fifty in front of him, for moral effect."

Intuitively, soldiers know these observations to be correct, but only a few can explain their underlying meaning and the crucial importance they make on the field of battle. Ardant du Picq worked to analyze the cause and effect of human nature and, as a consequence, became one of the most lucid writers on the psychology of the soldier in battle.

In his works he presents a chain-like logic to explain the feelings and emotions men experience in battle and the advantages of understanding the human aspect. The starting point for this logic is a belief in the unchanging nature of mankind: Human nature today is fundamentally the way it has been for thousands of years and will be for thousands more. That being so, he reasons, the key to understanding past conflict is the same as for understanding present and future

battles; and that key is man—the only identifiable constant throughout the entire changing spectrum of warfare. Because man fights the battles and exists as the only constant in war, understanding the emotions and feelings of the soldier can explain how and why battles are won and lost.

From his studies of ancient and modern battle, and from personal experience, Ardant du Picq concludes that both winning and losing armies harbor certain traits and attitudes that can be either fostered or changed by leaders. It follows that if the mind can be prepared and conditioned for combat, the results can become more predictable, and an educated judgement is then possible in terms of battlefield success. The next step is to determine what factors or conditioners have influenced the minds of soldiers throughout history and have caused armies to succeed or fail.

## CHARACTERISTICS

Ardant du Picq contends that victorious armies and the men in them have certain characteristics in common:

- Unity.
- Mutual support.
- Cohesion.
- Determination/resolution.
- Discipline.
- Trust.
- Perception.
- Tactics appropriate to the national character.

In combination, these characteristics produce the moral force of an army. Each one represents a feeling or an attitude that each soldier in the organization holds and that the group shares.

If these factors are properly developed within an army and are directed toward an objective in combat, they have a powerful moral effect on the enemy. When this is coordinated with the physical or material aspects of the army (weapons, number of troops, defenses, logistics, and the like), it begins a chain reaction in the minds of the enemy soldiers that leads to fear, then to terror, and ultimately to flight and destruction.

Although his thoughts are not expressed this way, Ardant du Picq's in-

tent seems to be to explain how to disrupt and then shatter the enemy's perception of his own situation. Each soldier on the battlefield, therefore, creates within himself (or each unit within itself) a "moral contract" of how things are now and of what they should be upon confronting the enemy. Everything one opponent does to another must focus on breaking the "moral contract" in the soldier's mind (or in the consciousness of the unit). This, of course, is why surprise, mobility, shock, envelopment, deep penetration, firepower, and speed are so crucial. Unfortunately, these tactics are often misapplied by those who don't really understand what is to be achieved from their use.

Ardant du Picq knew that moral ascendancy comes from the "heart" and represents feelings that spring from the perceptions of those in the ranks. Without it, the materiel of an army has little value, for the will and resolution to use it is lacking. As a consequence, a preponderance of men, weapons, supplies, defenses, and industry will never make up for a lack of moral force.

By explaining the psychology of men in battle, Ardant du Picq has made a real contribution to us—he has conveyed the meaning and importance of the "moral effect." I see no room to criticize his reasoning. It not only makes sense, it has the weight of military history behind it.

The nature of man will dominate the battlefield as long as conventional weapons prevail. Ardant du Picq's study of this human dimension of war is timeless in its application and, in a profession mesmerized by technology, is the essential ingredient battle leaders must ceaselessly study and strive to understand.



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# Managing Functional Areas

MAJOR GARY W. ANDERSON, United States Marine Corps

A functional area manager at battalion level has a difficult job. He has to satisfy all the people above him who have anything to do with his functional area, and at the same time supervise all those below him who have the same functional area as an additional duty.

The problem with additional duties is that they are just that—additional. A harassed lieutenant or captain may have at least four or five additional duties. The sad fact is that although few aspiring young officers are relieved of duty in peacetime for tactical incompetence, many run afoul of the system because they cannot handle the intricacies of postal matters or electronic warfare.

To all of you who are functional area managers, therefore, I offer the following principles—principles that have come from my experience as a functional area manager and a supervisor of such managers. My observations are presented from a lieutenant's point of view, for this is where these battles are either won or lost.

The first thing you should consider on assuming an additional duty is that somewhere in the chain of command there is an officer who has that job as his primary duty and who spends his entire time worrying about that job. This means, of course, that you as a functional area manager—albeit as an additional duty—must be prepared to make that additional duty the most important thing you do for a stipulated time each week.

Accordingly, you are well advised to establish an early relationship with the folks up the line who ultimately will do the inspecting of that area in your unit. Your interest and concern will be your best assets in establishing your credentials.

Find out all you can about your functional area. Ask for a courtesy inspection as soon as you take over. This does two things. First, it makes your immediate supervisors in that particular functional chain a part of any problem you may have. Second, and most important, it gives you a place from which to start.

If you find your area is in good shape, you can start a program to keep it that way. But if your initial inspection is unfavorable, let your boss know quickly. Although you can't be blamed for the problem, you will be held responsible for what comes next. If you need help, ask the commander or XO for it now; on the other side of all this, make sure your report comes complete with your plan to remedy the situation. No one, particularly a leader, likes to hear unvarnished bad news; your job is to make the news better.

## CHECK SOPs

Next, check on the way your functional area is handled in your battalion's SOP. (Every functional area has orders and SOPs that pertain to it.) It is amazing how many battalions come to grief because they did not conform to their own SOPs. This is usually caused by pure laziness. Writing and updating an SOP is a pain in the neck, and the easy way out is to take an SOP from the next higher unit and change the names to match your unit. This is easy — until you find that you have directed yourself to maintain equipment and conduct training that your unit doesn't rate or need. It gets worse when you are gigged on an inspection for failing to comply with your own directive. So be sure to review your unit orders and

SOPs. If you can't conform to your own directives, change them to reflect reality, if directives from higher headquarters will allow it.

Remember, too, that sound documentation is your only way of demonstrating that you are conducting the classes, briefings, or whatever is needed to keep your unit current in its skills as they relate to your functional area. And don't forget to document concurrent training that relates to your area — documenting the amount of time your unit spends exercising in NBC gear, for example, will help show a pattern of attention to such training. (Needless to say, everyone concerned should keep a copy of all such documents in his files.)

As a battalion level functional area manager, you may feel that you are at the end of the world. If so, imagine what life is like for your company level subordinate managers. If a particular functional area is a secondary duty for you, it may rank third for them. This can present a real leadership problem for you, because in supervising them you must compete with a number of other demands, and you cannot monopolize their time to the detriment of their primary duties. Your supervisory activity, then, is best accomplished by a combination of the carrot and stick approaches. Praise these officers or NCOs in front of their company commanders when they do well. Conversely, give them an opportunity to make things right before you report them for the things they don't do well.

Above all, remember that your area probably is not the only thing that is placing a demand on their time; in fact, it may be a fairly minor one. It will become major only if something goes radically

wrong, and your job is to see to it that nothing does go that wrong. In the world of functional area management, delegating isn't necessarily a virtue.

Make certain that you know — or learn — your business. If you had to take over your additional duty without having any experience with it, rectify the situation as soon as possible. Attend a school if you can. If you can't, take a correspondence course. If all else fails, learn fast on the job. As a minimum, know how to do preventive maintenance, teach relevant classes, and use equipment.

Develop a plan for attaining unit objectives within your area, and keep some milestones. For instance, two weeks before a major inspection or tactical exercise is not the time to begin squaring away your area. Everyone should know what the milestones are; your commander, your senior functional manager, and your subordinates should all be helping you move in that direction. If you fall behind, ask for help. Make everyone part of the problem; then they will have to become part of the solution.

Now we come to the payoff — the inspection. If you haven't followed the principles outlined thus far and your inspection is tomorrow, this part won't help

you. On the other hand, if you have a good area, this will help you present it in the best possible light.

Many good units get marginal inspection grades because they organize poorly for inspections. You'll get good grades if you apply these principles:

- Find a quiet area in which to lay out your presentation. Don't end up flailing around in your own office with the telephone and other distractions. Lay on a conference room or classroom well in advance.

- Prepare the presentation. Lay it out in exhibit format using the inspection checklist. (Almost all inspections have one.) And have it all together. Don't look disorganized by running around during the inspection looking for odd pieces of documentation.

- Never make the same mistake twice. Review all previous inspection reports—you can be sure the inspector has. Make sure you have corrected any previous problems. If you haven't completely solved them, document what you have been doing toward that goal.

- Don't argue with the inspector. Any good inspector will look closely at what you've been doing, and will give you the courtesy of a thorough inspection. If he

nitpicks, you are probably in good shape. This means he is having to work hard to find problems. But if he finds problems when he looks at your first exhibit, you're in big trouble. Don't make it worse by antagonizing him.

None of these inspection tips will make an unsatisfactory unit satisfactory, but they can help you put the final touches on weeks or months of hard work. Your value to your unit in combat may revolve around your tactical proficiency, but you'll never get to that point if you are relieved in peacetime for failing a brigade career-planning inspection. Success as a functional area manager will help you develop a reputation for competence that will serve you well throughout your career.



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# Your First Assignment

MAJOR ERIC E. HOLDEMAN

For most officers, their first assignment is a time when their learning curve is at its peak—a time when they formulate their basic conceptions of what the Army is or is not; how it operates; and how they operate within it.

That first assignment is indeed different from all the other assignments an officer can expect to have during his military career. Never again will he experience the frustrations and successes that come from being a newly commis-

sioned officer. And as the initial weeks and months grow into years, his "military personality" will develop.

Recognizing the fact that a great deal of literature is already available to guide young officers who are willing to read it, the ideas and thoughts set forth in this article represent only a few of the guideposts some of my acquaintances and I have found to be particularly helpful. We hope that the young infantry officers who are now facing their first assignments will

find them helpful, too. I therefore address the following advice directly to them.

As a leader, your mission, of course, is to lead soldiers. But the first principle of leadership is knowing how to follow. Giving orders is easy; taking them can be difficult. The example you set for your subordinates in executing the directives given to you can be an unspoken testimony to the esteem in which you hold the Army as a way of life. Your attitude



toward your duties and their performance will be reflected by the members of your platoon. If you become moody and disenchanted with the tasks at hand, these feelings will be conveyed to those who must follow your orders. Half-hearted orders will be executed in a half-hearted manner.

Physical fitness and maintaining personal conditioning are much more important than most lieutenants realize. One easy way to gain your men's attention is to do either poorly or extremely well on a PT test. The officer who falls out on a morning run will also find his other leadership tasks harder to perform. At your level of leadership, you must strive to learn everything your subordinates know and more. Their respect will follow.

## INTEGRITY

The one leadership trait that can help bond your men to you is unquestioned integrity. It is something we all start with and something only you can take away from yourself.

Motivating your subordinates is the key to your success. Every person can be motivated to do things he may not want to do, although the tactics and techniques may vary considerably. But whether you use stick or carrot, your goal is to keep the motivation performance oriented.

One last thing on leadership—we all want to be liked. Many a new lieutenant has had to face the fact early in his first assignment that respect for his decisions and for him as a leader is more important than being liked. If you set high standards for your men and insist on performance, success will follow, as will the respect of your men.

When you walk into your first unit, you must start evaluating the people you will be working with, and that means your NCOs. You lead your platoon, but you do it through your NCOs, and your primary job is to lead them. Don't try to become the super squad leader to every soldier. The NCOs will be glad to show you their technical expertise, and as they teach you, you will be able to evaluate what they are made of and in turn to train them in the areas you find deficient.

Don't fail to turn to your platoon sergeant or First Sergeant for advice or counsel. Their practical experience and know-how in dealing with everyday problems can be of great assistance. But remember that you are still the leader, and you must make the decisions.

Among your specific duties, there are at least two that you may need to be worried about—property accountability and safety.

## PROPERTY ACCOUNTABILITY

Property accountability will be an important part of your weekly activities. It's one of those subjects that may have been glossed over in your schooling, but one that can come back to haunt you later if you don't pay attention to it.

A good inventory cannot be over-emphasized. Every supply room has the publications you need to read to become an expert on supply accountability. Do thorough inventories, and if you don't see an item, don't sign for it. You must have a continuing program of inventories and subsequent supply actions if you want to keep from paying out of your own pocket.

## SAFETY

You pay in another way if you neglect safety, because you are responsible for the safety of your men—on and off duty. This is a fact that many young officers find hard to accept. You may ask yourself, "How can I influence what a sergeant does when he's off duty?" You can do it by preaching "Safety First." Accidents rarely "just happen." They are caused by an inattentive chain of command. The soldiers who are killed or maimed by the hundreds each year suffer, for the most part, needlessly.

Find out the safe way to do things, from changing tires to backing vehicles. (The safe way isn't always the quickest.) When you move on to your next assignment and look back on your tour and no one is missing, this will be your reward—and you'll know you did a good job.

Something else that goes with you when you leave that first tour is your

reputation. Because the Army is relatively small, and in many ways a closed society, you can expect to meet acquaintances and friends again and again throughout your career. The reputation you build, therefore, is no small matter, and it begins with your first assignment.

First impressions are lasting. When you walk in the door of your new unit, you make a statement, without saying a word, about who you are and what you think of the Army. Your appearance, uniform, and personal grooming are the first indications of what type of officer you will be, and military courtesy is another indicator of who you are and what can be expected of you.

Company commanders usually throw their lieutenants into the breach to find out what type of officers they are. So, sooner or later as a new officer you will be given a project or task, large or small, that will give you your chance to shine.

And you will want to do well, because there is an underground pipeline of information between officers about other officers and their ability to perform. If you should fail in your first effort, it will take many more successes to overcome that failure. If you have a number of successes *before* your first failure, though, that failure will be seen as only a minor aberration in your otherwise sterling performance.

While striving to do well in your first assignment, though, you should not neglect your family.

If you aren't married now there is a good chance that you will be. When you marry you accept another commission as important as your military one, and the balancing act between a military career and a family is not an easy one. Priorities change and your wife can become disenchanted with Army life quicker than you can say "short tour to Korea." If you unknowingly teach her to dislike the Army, you may face a "me or the Army" decision later in your career.

There are some things you can do, of course, to make the Army a good experience for all. First, if you express positive feelings about the Army and your experiences, your wife will be much less likely to express its negative aspects. Allow your family to participate in your career by talking over the next assign-

ment with them and then taking their opinions and feelings into consideration. Keep your wife informed about your activities at work and any upcoming training events. This will make her feel like a part of your military life and not separate from it.

Participating in the social life of the Army brings you into contact with other military couples, and these friendships can help to sustain not only comrades in arms but their spouses, too.

The Army is a profession, not a job.

Do not expect to receive more than you give. Normally, you'll receive less. The pressure to succeed and continue advancing through the ranks will increase with your years of experience. No amount of money or benefits can adequately pay for the hours, the separations, the hardships that come with Army life. If after a few years of service you decide the Army is not for you, then finish your service honorably and move on to something you enjoy more. If you decide to stay, be the best officer you know how to be.



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# HHC Executive Officer

CAPTAIN SAMUEL J. PADGETT, JR.

The executive officer (XO) of an infantry battalion headquarters company has a variety of duties and responsibilities that an officer newly assigned to the job may not fully understand. The headquarters XO is assigned many additional duties as well, depending upon the mission and organization of his particular unit.

An XO's first step in understanding his job should be to understand his unit's particular organization. In a regular infantry division, for example, an infantry headquarters company usually consists of a battalion headquarters section, which is made up of the S-1, S-2, S-3, and S-4 personnel, and a company headquarters section, which is made up of the company commander, the XO, the first sergeant, and the supply sergeant. In addition, there is a communications platoon, a maintenance platoon, a medical platoon, and a support platoon (which includes the mess team and the transportation section.)

Because of the diverse organization of the company, its commander must call on his XO to monitor several important aspects of the unit's daily operation—usually education, maintenance, crime

prevention, and physical security—and any other missions that may suddenly become crucial to the company's mission.

As education officer, the XO closely monitors the education level of the soldiers in the company. He is the link that connects the company to the education center for such classes as the Basic Skills Education Program (BSEP) and the Advanced Skills Education Program (ASEP).

He works with the sections, the platoons, and the first sergeant to identify the soldiers who need this kind of training. He keeps an up-to-date education bulletin board and talks to each soldier about his personal educational goals. Furthermore, he keeps all personnel informed of new classes, programs, and educational opportunities. (It takes a bright, intelligent soldier to operate and maintain the Army's new and sophisticated machinery.)

As maintenance officer, the XO represents the commander in the motor pool. This is a daily function and one that requires tedious attention to detail. Poor maintenance can instantly decrease unit readiness, especially if the unit has ve-

hicles that are older than the drivers, and the Army's new hardware requires its own kind of special care and attention.

The headquarters XO's primary function in this area is to see that all vehicles are operational. He must know the status of each and must see that all vehicles receive their scheduled maintenance, even when their drivers, for one reason or another, are not present for duty.

This means that he must check each vehicle regularly and see that all deadline deficiencies are corrected immediately. All priority (0-3) parts should be ordered the same day the need for them is determined, and regular (0-6) parts should be ordered as soon as possible after the priority parts. And he must check the deferred maintenance board to see that all items have been ordered and the requisitions properly recorded.

Each day, he should see that the parts bin is cleared out, and that the parts are put on the equipment within 24 hours. Vehicles that are not operational but awaiting parts must be repaired the same day those parts arrive.

Each day, the maintenance officer (XO) must inspect the vehicle line for police, leftover parts, and vehicle line-



up. (A well policed and straight line-up of vehicles reflects the discipline of a unit, and a mobile unit can remain mobile only if it has a successful maintenance program.)

Crime prevention and physical security are also high priority programs, because fraud, waste, and outright negligence have led too often in the past to lost and stolen equipment. The XO must therefore initiate effective programs that are aimed at safeguarding all U.S. Army hardware. This includes strict compliance with AR 190-31, Department of the Army Crime Prevention Program; AR 190-13, The Army Physical Security Program; and FM 19-30, The Physical Security Manual.

The XO's goal should be absolute security. He should see that all of the necessary forms are filled out properly so that weapons and ammunition are not lost or misplaced. At the same time, an emphasis on locking and securing wall lockers and rooms can save the Army and its individual soldiers money, manpower, and plain grief.

As part of his crime prevention effort, the XO must inspect the company areas at least once a month. A casual walk through the troops' rooms during a week-day, for example, can yield unexpected results. Troops lounging in their rooms often take shortcuts by leaving their rooms and valuables unsecured. By making on-the-spot corrections and by informing platoon leaders and platoon sergeants of any fraudulent violations, the XO can prevent potential problems.

And the XO must see that crime prevention and physical security are emphasized all the time—not just when a general inspection is coming up. Informative classes and posters can help maintain this emphasis.

In addition to these regular duties and responsibilities, a headquarters XO usually must also juggle such extra duties as tax assistance officer, unit fund officer, awards officer, indebtedness officer, unit supply officer, tool control officer, and field sanitation officer. His job is a difficult one indeed, for a failure in any one of these areas can result in low

morale and an ineffective organization. An XO must therefore display maturity and experience if he is to anticipate possible problems and prepare the unit to solve them.

In summary, the headquarters XO is the commander's inspector and his personal representative in all areas of tactical operations and daily garrison activities. He is also an advisor to the commander on many areas that in the headquarters section are normally divided among the staff officers. If he neglects one of these areas, his unit's combat readiness, to some extent, will be impaired.



**Captain Samuel J. Padgett, Jr.**, served as executive officer of a headquarters and headquarters company in the 25th Infantry Division in Hawaii. He was commissioned in 1981 from the Officer Candidate School and is now attending the Infantry Officer Advanced Course.

# Mortaring

## Can We Now Move Forward?

WARRANT OFFICER-1 KEITH F. HOYLE, British Army

Before we go too far down the rocky road of no return, our current mortaring systems need further review. While already in the throes of a major change, we need to adopt new procedures and new technology, and at the same time allow old and impractical procedures to fall by the wayside.

For example, the laser range finder and the thermal imager will greatly improve the fire support team's ability, and our gun line procedures must be ready and able to accept this change. But first, the

sentiment that surrounds the 4.2-inch mortar must be put to one side to allow room for newer and better systems that will have a more positive effect on the modern battlefield. Frankly, the 4.2-inch mortar provides complications that we can do without.

The weight of the whole system is impractical and unmaneuverable, and it does not lend itself to the fast moving and rapidly changing battlefield of the 1990s. It is essential that a weapon system be movable, either dismantled into easily

carried parts or placed on a carriage. Each 4.2-inch round weighs 29 pounds, which is three times as much as an 81mm round, but it does not produce three times the lethality. For each 4.2-inch round we bring forward, we can bring up three 81mm rounds.

Another problem is that the rifled barrel on the 4.2-inch mortar wears faster than a smooth barrel, and an extra fire direction center procedure must be employed to "aim off" a round for drift.

When comparing systems, of course,

we need to beware of putting too much emphasis on maximum range. A deployed mortar platoon needs a large area in which to operate, camouflage its vehicles, and disperse its ammunition. If the mortar has a very long range, it is likely to be deployed farther to the rear than current doctrine calls for. More than likely, it will then be deployed in an area that is out of the battalion commander's control. If it begins to sound like an artillery piece, that may be its future—out of the battalion commander's control!

## SIGHTS

By far the biggest problem to be overcome at the moment is the sighting system. Should all of our mortars — 60mm, 81mm, 120mm — have the same sight? Quite clearly the M64 sight, currently on the M224 (60mm) and planned for the M252 (81mm), will be too delicate for the 120mm. It may also be unsuitable for the M252, which also produces quite a traumatic shock to the sight. Whichever is chosen, all the sights currently in use need three modifications to speed up mortar deployment and to simplify plotting procedures.

First, the sight scale rings, now numbered progressively in a counter-clockwise direction, should be numbered in a clockwise direction in the same way as the aiming circle. This very simple modification would allow the complicated and unnecessary use of deflections to fade into obscurity and would provide the following benefits:

- Plotting procedures would be much simpler with only one set of scales to be read.
- Once the aiming posts had been established, each sight could be slipped to read the mounting azimuth. This means that the sight would read the grid azimuth along which the barrel was pointing.
- Azimuths from the plotter would be applied directly to the sight.
- On a mortar firing toward the east, the sight would read 1600 mils. This would make orientation and safety supervision much simpler.

The second modification needed on the sight is to the telescope. Currently, the

elbow can be set in only two positions. This means that the gunner has to either stand or crouch down when laying the mortar; no position in between will do. If the cross-hair were engraved on the telescope and not on the elbow, the eyepiece could be rotated without moving the cross-hair. This would save valuable seconds, as the gunner would not need to "set" the eyepiece but could position it for himself.

Finally, the sight needs a simple periscope attachment, which would provide several advantages:

- It would prevent sight blockage.
- The aiming circle would not have to be put to the left front of the platoon but could be positioned anywhere.
- The gunner would have no problem seeing the posts when firing from a mortar pit.
- The posts would not need to be offset 400 mils to the left as they are in the current procedure.

Our plotting procedures also need to be reviewed, especially as the mortar ballistic computer (MBC) is about to be issued. Any simplification to plotting procedures must be a time and money saving bonus. (Currently, students at the Infantry Mortar Platoon Course spend almost 40 percent of the course learning plotting procedures. When the MBC is issued, two more weeks will be added to the course.)

Procedures can be simplified as follows:

- There should not be any differences between the charts — the surveyed chart should not be used. It is unrealistic to expect to have surveyed points on a constantly changing and fast moving battlefield.
- The scale should be fixed at 1:25,000. A larger scale, 1:12,500, is unnecessary, because mortar accuracy should not be desired down to ten meters. (Although we would expect to hit a trench or point target with mortar fire, we cannot do it aiming at the point and firing one round. Because of the mortar's characteristics—the effects of wind, variations in round weight—this is not realistic. We hit a point target by putting an adjusting round as close as we can and firing for effect. This uses the large beaten zone of the mortar to spread the

rounds out and hopefully hit the point target.)

- The board should be gridded on deployment so that the pivot point is the mortar location. (The first two simplifications above would effectively do away with the need to "drop below the pivot point" when the range exceeds 2,900 meters.)

## FUTURE

When mortars fire, they are subject to radar detection. This can "fix" a mortar position quickly and accurately and allow it to be counter-bombarded almost immediately before any adjustments can be made, or at a more crucial stage of the battle when adjustment has been completed.

There are only three ways to defend mortars against radar:

- Fire on the lowest charge employing a low trajectory to stay under the radar scanner and reduce the time of flight.
- Delay registration or adjustment until the last possible moment.
- Position the mortar line where there is high cover—behind hill features, behind woodlines, in small wooded clearings, or in city streets.

If mortars are to produce the necessary fire support for a battalion commander, they must be able to produce accurate supporting fire when they are subjected to counter-bombardment. Even though they may be firing from an entrenched position, that position will not protect the crew from the fragments of an airburst.

We should think now about firing mortars from under armor. In fact, the next generation of mortars must be completely contained within an armored tracked vehicle that can keep up with the M1 tank and M2 fighting vehicle. It must not have a hatch — such as the ones on the M106 or M125 — that opens to enable the mortar to fire, because this will allow airburst shrapnel to enter the hatch.

We should start to look at a turret-mounted mortar, a weapon system for the next century. It is conceivable that in 10 years we will be able to put an 81mm round out to 7,500 meters. First-round hit accuracy will be provided by laser range finders, more accurate sighting



equipment, position locating computers, and ammunition that consistently has exactly the same weight and propellant for each round. This vehicle should be based either on the M2 or its replacement, with a redesigned turret containing a breech-loaded 81mm mortar and a different layout inside to accommodate at least 100 rounds of ammunition. With a crew of four, this should not be a problem.

The mortar is a very simple weapon system. Anything that detracts from this simplicity or requires complicated pro-

cedures will cause problems that we must make every effort to eradicate. The mortar must remain highly mobile, protected, and within the control of the battalion commander. New ideas and concepts must be fully thought out and, if acceptable, integrated quickly into our training. It is essential that new concepts and procedures be disseminated quickly to all TOE units and that a procedure for this be organized at the Infantry School level.

Although mortaring in its current form has been with us since 1916, only now

is it being affected by new technology and materials. Mortaring is ready for a quantum jump forward and must not be held back by repressive ideas and negative thinking.



**Warrant Officer-1 Keith F. Hoyle** is part of an exchange between the British School of Infantry and the U.S. Army Infantry School, where he is assigned to Company B, 1st Battalion, 29th Infantry to conduct mortar instruction.

# A Magazine for the Machinegun

CAPTAIN BRUCE P. MAMONT

Some soldiers seem to consider it the height of fashion to sling belts of M60 machinegun ammunition diagonally across their shoulders. Slinging the ammunition does permit a soldier to use both his hands for his rifle and also distributes the ammunition evenly and close to the body. Unfortunately, the first time the bearer takes cover in the prone position, the ammunition becomes fouled with mud, snow, or sand that is certain to cause it to malfunction in the machinegun.

Although I don't endorse that way of doing things, I do sympathize with the problem. Ammunition cans are unwieldy and can't be comfortably suspended on a strap to leave a rifleman's hands free. The 100-round bandoliers in the cans are no better. They are almost as bulky as the cans themselves and lack the cans' weatherproofing and security. (The full belts of ammunition that litter a squad live fire course after an exercise testify to how easily ammunition carried in a bandolier can be lost while the bearer is running.)

The original -12 operators manual for

the M60 showed a magazine to hold the 100-round-belt box. This magazine encased the box in rubberized canvas to protect the belt from the elements. A sheet metal clip was mated with a clamp and lever mounted on the left side of the machinegun receiver for attaching the magazine. The belt fed into the receiver through a slot in the side of the magazine.

That magazine was not rigid enough, though, because of its canvas construction and could not support the weight of the ammunition. The solution was to

replace the magazine with the present system of a hanger group and bandolier. But the bandolier is no more rigid than the magazine was, and it provides even less waterproofing for the belt. Besides, it is not unusual to encounter ammunition not in bandoliers that lacks the web collar necessary to suspend the ammunition on the hanger group.

In reviewing small arms literature in search of alternatives, I was struck with the many types of magazines foreign machinegun designers use. One in particular looked promising—a semi-cylindrical magazine the Australian Army uses on the M60.

Constructed of sheet metal coated with nylon as a dry lubricant, this ingenious device enables a gunner to carry a short 40-round belt (see Figure 1). The small magazine keeps weight and profile low and still holds enough ammunition for several good bursts. Before a belt is expended, the assistant gunner can attach another one. The belt from an external can feeds smoothly over the magazine's round top. At the end of an engagement, the belt can be broken to a length of 40

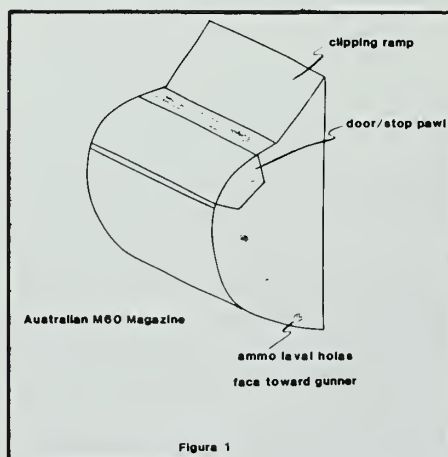


Figure 1

rounds and the short belt stored in the empty magazine.

A small door on the magazine acts as a stop pawl. The door is spring-loaded, which permits the magazine to be loaded or unloaded, keeps the magazine relatively weatherproof, and prevents the belt from dropping back into the magazine if the feed tray cover on the M60 is opened. The spring on the door is just strong enough to keep the door closed without creating tension on the belt against which the machinegun has to pull. Rigidly clamped to the receiver, the magazine holds the belt in a stable position for positive and reliable feeding.

During movement, the gun initially fires from the 40-round belt, as described above. When static, the belt can be clipped to an external belt without unloading the magazine. Before resuming movement, the external belt is broken at the receiver and reclipped to the short belt in the magazine.

My unit, the 1st Battalion, 4th Infantry, 3d Infantry Division, set out to make one of these magazines. A prototype based on the Australian pattern was made by Staff Sergeants Roy McCarty and Jimmy Watson. First, a cardboard model was used as a mold for a fiberglass magazine. Although it was light and rigid, this fiberglass prototype was not satisfactory because of its method of attachment. A web strap similar to that on the present cloth bandolier was tried, but it would not hold the magazine tightly enough. The fiberglass was then replaced with metal so that the magazine could be welded directly to the hinged hanger group, an organizational Class IX repair part. M60 ammunition cans were cut with a band saw to form the sides, bottom, and back of the magazine; the rounded top was made of fiberglass; and a door was adapted from an M16 dust cover. A slot by the door allowed the door to function as a stop pawl, just as in the Australian design, and a metal strip welded at the top of the magazine formed a firm platform for clipping new belts of ammunition onto the last round of the belt being fired. The sides of the box were left about one-half inch higher for a length of one inch to guide external belts and to prevent a belt from twisting laterally (see Figure 2).

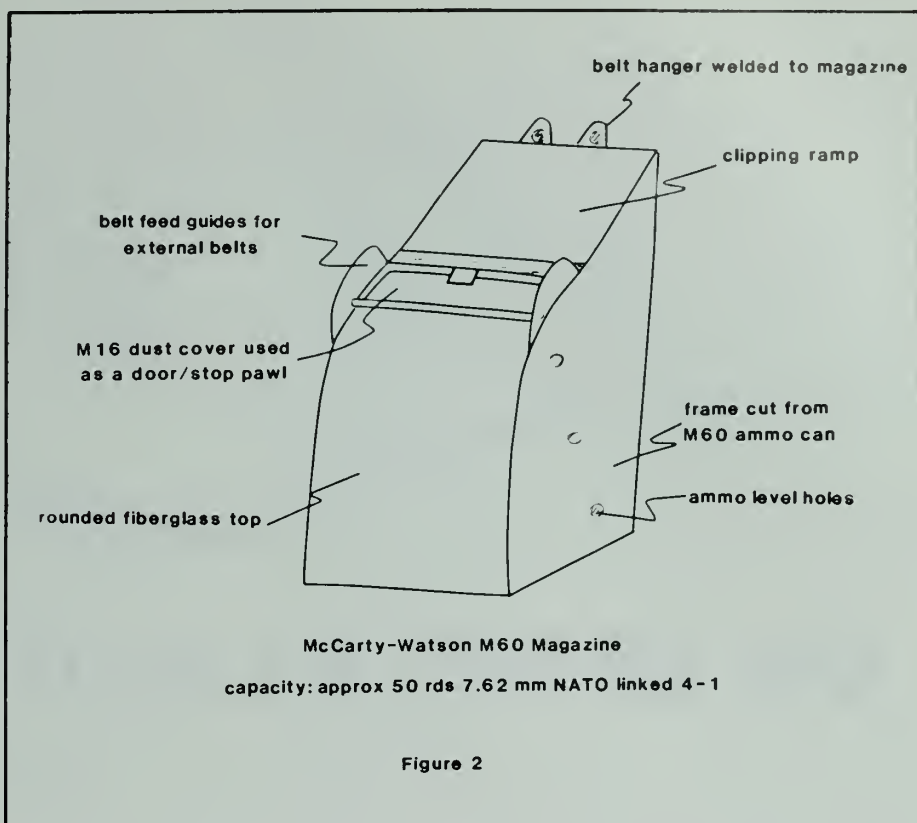


Figure 2

In the spring of 1983, two of these magazines were constructed of metal and tested with blanks during a 12-day FTX. The magazines performed as expected.

Even a roughly fabricated field expedient magazine such as this would offer our Army many advantages over no magazine at all. When clean ammunition is positively positioned for best feeding, a machinegun is much more reliable, and it lasts longer. But this magazine would not solve the problem of carrying additional belts of ammunition.

During a discussion of this problem in our unit, Captain John D. Gardner suggested that the assistant machinegunner hand-carry a small field pack (the "butt pack") containing 300-400 rounds. When the machinegun was put into action, the pack would be placed alongside the gun. The belts inside the pack would then feed from underneath the flap on the side of the pack. Unfortunately, the pack would still have to be replenished from cans carried by the squad members.

An Australian innovation again suggested an alternative. Australian M60 ammunition is packed in 100-round belts that are put into plastic sheaths, similar to socks. A "sock" can be pulled on and

off, or can be ripped open in an emergency with a pull tab. Ammunition in a sock-sheath similar to this could be slung or carried in another field expedient container, well protected from the elements. Better yet, ammunition pouches could be used that would hold a 100-round belt each. These pouches could be carried by squad members or designated ammunition bearers.

The U.S. Army has apparently succeeded in solving the problem of carrying ammunition for the M249 Squad Automatic Weapon (SAW). The ammunition for the SAW is issued in 200-round belts already packed in a magazine. Illustrations of the operational tests on that weapon show ammunition pouches that enable the gunner to carry magazines securely. If the same thought process that provided a complete system for the M249 were applied, it should be fairly easy to solve the problem for the M60 as well.

**Captain Bruce P. Mamont** recently completed a master's degree from the Florida Institute of Technology and is now assigned to the TRADOC Combined Arms Test Activity at Fort Hood. Formerly, he attended the Infantry Officer Advanced Course and served with the 3d Infantry Division in Germany.





# ON BEING A LIEUTENANT

**Captain Richard D. Hooker, Jr.**

Not long ago I finished a three-year assignment with the 82d Airborne Division during which I had served as leader of a rifle platoon and an antiarmor platoon, and as executive officer of a brigade antiarmor company. It also marked the end of my tour with troops as a lieutenant.

My years as a cadet had prepared me for my duties as a lieutenant as well as any institution or program of instruction could have. Still, I found that in many cases there was no substitute for being on the ground and actually experiencing the challenges and the problems of serving with troops.

I wasn't the best lieutenant in the division, but I think I was a good one. And I certainly didn't learn all the answers or face every possible situation. Even so, maybe some general observations on what it's like to be a lieutenant and to lead troops in our Army today will be of some use to you, the lieutenants who are just starting out. I ask only that you read what I have to say and compare it with what you've been taught, what you've heard, and what seems to appeal to your common sense.

## YOUR PEERS

Among your peers, you'll find good officers and bad ones. As cadets or officer candidates, you've all spent your officer training period in a close-knit and competitive environment. You will find life in your battalion much the same, though perhaps not quite as all-encompassing. The biggest difference,

I think, is that here the competition is real, and the stakes are pretty high—your standing in the battalion, the jobs you'll have as you progress and gain seniority, even the cut of your OERs.

In some battalions the lieutenants are fiercely competitive and cliquish. In others, there is a close, fraternal association among the lieutenants. Regardless of the chemistry you may find when you arrive, you will find it best to test the waters carefully and become familiar with the peculiarities of your new unit before jumping in with both feet. At first you may tend to cling to the familiar face or experience of fellow lieutenants who came from the same source of commissioning you did—ROTC, U.S. Military Academy, or OCS. This is perfectly normal, but I urge you to seek out the friendship and association of your peers from all commissioning sources and all backgrounds. You'll find many who are sharp and willing to help you, regardless of how they got there.

You may at times find yourself judging some of your peers harshly, but open criticism of other lieutenants, however legitimate, almost always comes back to its source in one way or another. An officer's substandard performance will usually, though not always, be apparent to the people who really matter. Except in very close circles, therefore, you will find it best to guard your opinions closely.

If you are specifically asked to give your opinion of another lieutenant, an honest and frank response is certainly in order. But you should try to keep your comments as professional as possible and do your best to point out the good things

about him as well as the bad.

All things considered, your peers may well make the difference between your success and your failure in the battalion. Ultimately, you may find yourself in combat and depending upon your fellow lieutenants for the survival of your men and the success of your mission. Even in garrison, much depends on the nature of your relationship with your peers: help with additional duties, for example, or advice, or the exchange of needed information. If you make a serious investment in your relationships with your fellow lieutenants, both personal and professional, the return will be well worth it.

## THE OLD MAN

You've probably guessed already that your company commander will have the greatest single influence on your development and your eventual success or failure as a lieutenant. I served under six different company commanders in three years. Two, I thought, were poor; the others were hard-working, committed to their profession and their companies, and genuinely concerned with their lieutenants. Each was different, and each stressed slightly different things. All had a tremendously difficult job to do and never enough resources to do it with.

I offer these basic principles concerning company commanders:

- Establish and maintain a reputation for working hard; it can gain you immediate respect and can help to turn away the wrath an occasional honest mistake can bring on.

- Never make the same mistake twice. This is fundamental and is usually what separates the good lieutenants from the mediocre ones.

- Do your best to anticipate problems, and always take the initiative, while keeping the boss informed. Every lieutenant should do all he possibly can to relieve the commander of his administrative burden and free him to lead his troops. If you find that in acting independently you usually make a mistake, it may be necessary to reevaluate your professional aspirations. The solution, however, is *not* to retreat into a shell and do only what you are specifically told to do.

- Know your job inside and out and act like a leader. You will be amazed at how many lieutenants lack the aptitude or the inclination to exercise leadership. Although your company commander may or may not be blessed with it himself, he will almost certainly recognize it and approve of it in his subordinates.

- Never, never, criticize your company commander, either openly or to anyone you would not trust your career with. Commanders, being human, are as sensitive as anyone else to criticism. The difference between them and other people is that they can do something about it and usually will.

You should expect that at some time during your first tour you will probably have a company commander who is something less than your ideal. If you do, swallow hard, put your head down, and do the best you can under the circumstances. It is in your interest, as well as in the interest

of the company and its mission, to make the best you can of the situation.

This is not to say that you should overlook obvious cases of truly poor leadership, such as breaches of integrity, abuse of your soldiers, or even outright criminal activity. (These cases are extremely rare but not unheard of.) Let your common sense be your guide, along with whatever advice you may seek from such outside sources as the chaplain or the battalion executive officer. Again, you should confide your initial misgivings only to those you feel you can trust, and only after you have made sure your information is correct and complete. If you are in the right, you can be confident that your chain of command will take the necessary action. If you are wrong, you will probably pay a heavy price for having raised the issue.

Sometimes despite your best intentions, you may find that you just can't work for a certain commander. This is a tough situation and one that doesn't have a completely satisfactory solution. If all else fails, it is probably best to confront your commander with your feelings and request another assignment. If the channels of communication are so poor that this is not really a good idea, an interview with your battalion commander may be your only alternative. In such a case, you should expect a somewhat-less-than-glowing OER, but if your performance has been sound and effective, and you don't have an excessively negative counseling file, you will probably not be hurt permanently. If you retain your self confidence and your drive, you have every reason to expect success and recognition as you go on with your career.

## “TOP”

As a young officer I had a much higher opinion of my rank than I would have later on. This is not to say that a lieutenant, even a brand new second lieutenant, doesn't enjoy a certain degree of authority or respect. In time I found, and I think you will find, that where you show genuine respect to the senior NCOs in the unit, you will get genuine respect in return. This begins with the First Sergeant.

First Sergeant is a rather puzzling rank and position, because nowhere is there an exact description of who the First Sergeant is or what he does. You can expect good and bad ones in roughly the same proportion as company commanders, and much of my advice about them goes hand in hand with my previous comments about company commanders.

Good First Sergeants seem to have a few things in common. For one, they accept responsibility for the noncommissioned officers in the unit and take an active role in NCO development. They also exhibit a high degree of loyalty to the commander, both personal and professional, and work closely with him in all areas having to do with the administration and daily running of the company. I never met or heard of a First Sergeant fitting this description who did not enjoy a good reputation; conversely, I never met or heard of one who did not meet it who was rated a success.

There are some basic principles that cover your dealings with the First Sergeant. First among them is to rely on his





guidance and advice when dealing with your NCOs and troops, until he gives you reason not to. A good First Sergeant can be a fount of wisdom on such matters, and any problem you may have, he has probably seen many times before.

Next, you should never try to pit the company commander against the First Sergeant. If you think about it for a minute you'll see that your commander cannot hope to succeed without the willing cooperation of his right hand man. (Make no mistake about it, that means the First Sergeant and not you.) If you must oppose the First Sergeant on some issue—a promotion, for example, or disciplinary action, or some other issue you feel strongly about—be sure to do it in a way that doesn't compromise his position or prestige. And win or lose, try to keep the issue a strictly professional one, for the working relationship you develop with the First Sergeant of your company can be a most effective tool for you to use as you go about your duties as a platoon leader.

## THE BACKBONE OF THE ARMY

The other NCOs in your unit will also be important to you. It is with sergeants that the business of running the Army is carried on. They will be your tools just as your weapons, vehicles, and radios are, but with the added dimension that they are emerging leaders just as you are. The younger ones may seem to be too much like your junior enlisted men at times. The older ones may strike you as tired or just reluctant to pitch in and get involved. In the main, I found that the NCOs I worked with shared the strengths and weaknesses

common to all ranks, and all people.

With the exception of your platoon sergeant, you may be surprised to find that the knowledge gap between you and your NCOs is not as great as you may have expected it to be. All of them will be experienced soldiers, but most will be new to the art of leadership. They will make mistakes, as you will, but it is vital in garrison as well as in the field that you exercise leadership *through* your NCOs and not around them.

Sometimes you may be tempted to do their work for them. The pitfall here is that in either training or combat you simply cannot run a platoon by yourself. Your good sergeants will learn to be competent leaders by leading. The substandard ones may have to be removed or reduced. If, in spite of everything, you rely on what you've been taught and work through your subordinate leaders, you'll be a fair bet to succeed.

Often a new lieutenant, when he first joins a unit, worries more about his platoon sergeant than about any other single person in it. There's a good reason for this—it's a rare man or woman who can walk into an experience as difficult and challenging as leading a platoon and do it well without help. If I have any words of advice about the subject, they are these: Just as the First Sergeant must be treated with great respect so that his authority with the troops will be a visible, tangible thing, so must the platoon sergeant be supported in front of the troops so that his position as the "doer" in your platoon is clear and unchallenged. His mission in life is to execute your orders and "run" your platoon. Your mission is to tell it where and how to run.

Much of what you and the platoon sergeant do will overlap. For this reason, the closest cooperation is required, and that means clear and open channels of communication between the two of you at all times. Mutual respect and two-way communication—it's hard to go too far wrong if you bear these in mind.

## THE TROOPS

As for the troops themselves—the soldiers of your platoon—much has been written and said about what a privilege it is to lead American soldiers. You will undoubtedly spend some of your best moments as a lieutenant interacting with your soldiers and sharing with them the fellowship and comradeship that is one of the great blessings of military life. You should be prepared, though, for an endless series of problems and challenges from them.

One of your most important missions will be to help them solve their personal problems—problems with finances, marriages, education, work, or even health. Sometimes this can be extremely frustrating, because so many of these problems could have been avoided if these soldiers had used common sense or adhered to basic SOPs. Even so, you really have to take a concerned approach and do your best to help. You can't solve the problems of the world, of course, or even guarantee that the same soldier won't repeat the same mistake all over again. What you can do, and must do, is convince that soldier (and by so doing, the rest of your soldiers, too) that you really, sincerely *care* about him. Once your platoon is convinced of this, you are well on your way.

How should you act around your troops? I won't presume to suggest that there's any one approved method of leading. I personally observed any number of different "types" in action, and there seemed to be good *and* bad lieutenants who shared the same kind of personality. I suspect, though, that the most successful ones were the ones who didn't try to submerge or mask their own personalities in an attempt to adopt a particular "style." After all, it's tough to try to be something you're not and still be convincing.

I tried to follow this rule of thumb: Reward them for good performance; counsel, correct, or punish them for poor performance; avoid playing favorites; and always try to be fair. (Being fair implies consistency, something all soldiers prize from their leaders.) You should not expect to be popular with every one of them, but if you sense that the good ones (the majority) seem to respect you, you'll know you are in the ballpark.

In the main, your soldiers will be different from you in many ways. They will generally be younger, less educated, probably less career-motivated, perhaps less physically fit. Does this mean that you are a better soldier or a better person than one of them is? In one sense perhaps it does, for, after

all, the government has made a considerable investment in preparing you to lead. But we are all Americans, and Americans tend to recognize ability over privilege, merit over position. American troops have always looked on themselves as *anybody's* equal; it's probably one of our Army's greatest strengths. My point is this: Demonstrating your right to lead your soldiers through competence and effectiveness and aggressiveness is a worthy goal and one you should strive for. But if you lean too much on your rank or position, or constantly refer to your education or background, you run the risk of seeming to think you're "too good" for your soldiers. And whatever a lieutenant may think of his talents and abilities, that has never been the case and never will be. So, before all else, dive into the business of managing and leading *people*, with all its frustrations. (I'm betting that the lessons I learned will be the most important of all in the years to come.)

Although I mentioned the importance of being yourself and avoiding a leadership style that is foreign to your personality, there are two character traits that I recommend to you, regardless of your personal style. The first is the ability to be calm under stress or adversity, and the second is a sense of humor. These qualities seem to steady the troops in a bad spot, and, perhaps more importantly, they help to steady you, too. That's not original advice, I'm afraid, but it's some of the best I was ever given. I hope it will serve you as well as it has me.

These, then, are the things I think of to share while the memories of my days as a lieutenant are still fresh in my mind. I won't try to tell you that every day of those three years was fun and easy; as a matter of fact, very few of them were. It was for me a period of hard physical and mental effort. I wasn't born with these lessons in mind. I learned them by making mistakes and then learning to do it the right way. But I was relieved to discover that a new lieutenant is not tasked with a mission that is beyond his abilities. He is only asked to exert himself to the fullest, and in the end that proves to be enough. I can truthfully say that I never lacked the feeling of job satisfaction, and I never doubted for a moment that what I was doing was vitally important to my unit and my country.

My hope is that you will go into your platoons, not in fear of what you have yet to learn, but with confidence in yourselves and faith in what you've been taught to believe.

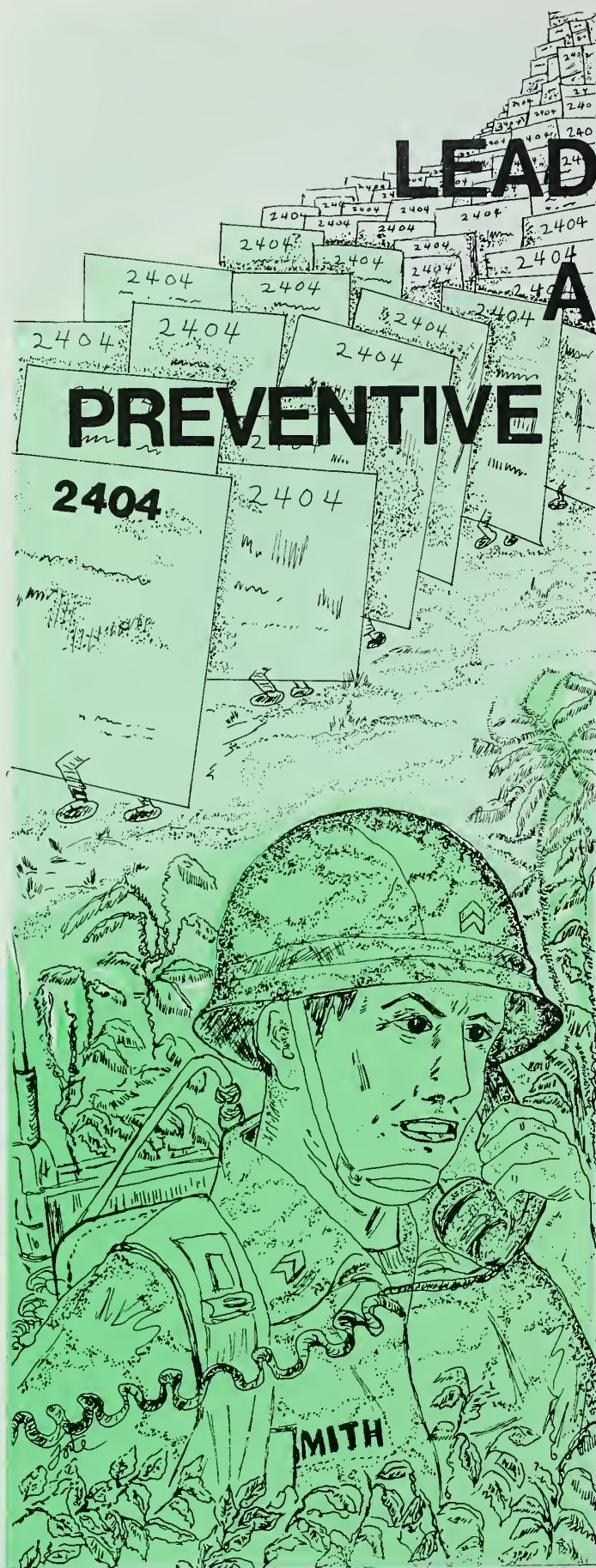
I welcome you to the ranks of the Field Army. Whatever we "Old Soldiers" may say, we need your energy and optimism, and we wouldn't want to do it without you.

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**Captain Richard D. Hooker, Jr.**, is now attending flight school at Fort Rucker. He is a 1981 graduate of the United States Military Academy. He has also completed the Airborne, Ranger, Air Assault, Pathfinder, and Jumpmaster Courses. In the 82d Airborne Division, he served with the 1st Battalion, 17th Air Cavalry and with the 1st Battalion, 504th Infantry.

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# LEADERSHIP

# AND

# PREVENTIVE MAINTENANCE

**Colonel Donald C. Fischer**

Really great leadership ability often begins with childhood. Parents and other adults control the development of a child through situations that lead to positive reinforcement and the avoidance of failure. Self-confidence and maturity develop from exposure to situations that involve gradually increasing levels of difficulty and responsibility.

People who have had such experiences are fortunate, and they can usually be recognized by their strength in dealing with others and in handling their professional and personal lives.

But there are too few such people to fill the Army's needs for leaders. And, unfortunately, developing leaders at a later stage is more difficult. It requires the same approach, but it must be done in a shorter time with more distractions and greater pressures.

Leadership development is, in fact, one of two major problems facing a battalion commander. The other is taking care of equipment.

Just before I took command of a battalion in Europe, I had the good fortune to be exposed to General John Galvin's thoughts on how battalion and company commanders might relate these two problems—how they might use the unit preventive maintenance program to place commissioned and non-commissioned officers in situations of controlled but increasing difficulty in which they were required to lead. (Much of this is alluded to in the recently published FM 43-2, which covers organizational maintenance management.) The ideas presented here are based on my experience with this approach.

There are several reasons why a unit's preventive maintenance program is a fertile area for leadership development.

We all know the problems of organizational maintenance: Readiness rates are high, yet inspections reveal nonoperational vehicles; resources and repair parts are available in quantity, yet vehicles are down for long periods; motor stables and preventive services are conducted, yet organizational and

operator maintenance are rated poor.

Much of the problem stems from making the condition of the equipment the responsibility of the battalion executive officer, the S-4, the company executive officers, and the motor sergeants.

In private life, when a car or truck breaks down, the owner takes it to the shop and sees that the problem is corrected. And since he's paying for this service, he makes sure it is done right. The same should be true in a military unit: The readiness of a vehicle or a piece of equipment should be the responsibility of the people who "own" and use it—the platoon leader, the platoon sergeant, the section officer in charge (OIC), and the section NCO in charge (NCOIC).

Unfortunately, equipment "owners" in the Army often do not realize the extent to which they are really responsible for the care and use of that equipment. Leaders should make sure that their subordinates have safe and well-maintained equipment to operate, that they know how to operate it, and that they know where they are to go and what they are to do. Failing to do these things is a weakness in leadership, and that is the major cause of accidents, losses, and low operational readiness rates.

In using the maintenance program to develop leadership, a commander first has to examine his own attitude toward the preventive maintenance program—such things as repairs, services, forms, and relationships among support elements in a company or battalion. Scheduling, inspections, work planning, and the way preventive maintenance sessions are conducted must all contribute to the commander's control of the program. Above all else, a commander must actively participate in and control the program.

One of the major steps he can take to get active involvement in the maintenance program is to take a realistic approach to scheduling. Any schedule must be related to the unit's mission, training, and support requirements. Therefore, he should not simply enter a time on a training schedule, for example, and blindly require that everyone be there.

Motor stables should be scheduled only when required, and heavily used vehicles should receive the necessary attention daily—during, before, and after operation checks. Lightly used vehicles, like those on hand in headquarters elements, do not need this constant attention. (There is nothing worse for a soldier's attitude than having to do the same things over and over again to vehicles that do not move.)

There is no need, either, for entire units to be in a motor pool for motor stables. (This is valuable only when large numbers of people need training, when the unit has received new equipment, or when there is a sudden, heavy requirement of some kind.)

Smaller numbers of people are easier to handle and to supervise. Thus, it is easier to keep everyone busy, and a motor sergeant does not receive more DA Forms 2404 (Preventive Maintenance Inspection Worksheet) than he can handle at one time. Too often, large batches of unprocessed 2404s lie in in-boxes for extended periods awaiting parts research and ordering while the same deficiencies and shortcomings continue to show up week after week.

This approach requires that motor stables be spread

throughout the week. It is a good idea to have such sessions Monday through Thursday. This leaves Friday free for parts runs, clean-up, training, personal business, or anything the motor sergeant needs to do to run an orderly, and humane, operation.

A good company training schedule, therefore, tells each platoon or section when it should be doing organizational maintenance as part of the company plan. Concurrent activities should be encouraged according to what is needed. The scheduled period should not be limited to vehicles. It can be used for weapons cleaning, organizational clothing and equipment maintenance, or shop equipment maintenance. Anyone who does not need to be involved should be doing mission work instead.

With this approach, a commander and all of the elements of his unit know what everyone is supposed to be doing—concentrating on essential tasks. The potential for wasted time is reduced and, because the entire unit is not in the motor pool at one time, it is easier for the commander to observe, evaluate, correct, and teach.

## CONTROL

The most valuable means of controlling the maintenance program and evaluating how well the officers and NCOs are supervising equipment operation and maintenance is the form 2404. That form is intended to be a means of identifying a maintenance requirement, an organized way of making notes that simplifies subsequent actions. Used correctly, it is a source of information for everyone involved—mechanic, operator, parts clerk, officer and NCO supervisor, and commander.

Often, though, as many operators will testify, the form is filled out, but it does not contribute to correcting the identified problem. In these cases, the preparation of the form has become an empty ritual.

The commander should require that a file be kept of the 2404s prepared for each vehicle. This type of file is often referred to as the "vehicle health record."

Copies of unprocessed 2404s should be placed in a manila folder after inspections are performed. Over a period of time, this collection can show a commander and his subordinate leaders whether operator maintenance is being performed before a vehicle is serviced or used. And if the file is regularly monitored, it can also show how the motor pool works to correct organizational deficiencies and how well the responsible officer and NCO push for corrective action.

The vehicle health record, accordingly, provides the basis for auditing the internal maintenance structure, assuring corrective action, and teaching leadership accountability to the officers and NCOs of the company.

## RESPONSIBILITIES

Everyone involved in such a maintenance program has certain responsibilities for making it work, from the battalion commander and command sergeant major (CSM) down to





the junior NCOs at squad level.

First, the battalion commander provides guidance to the companies on conducting motor stables and preventive maintenance sessions, and directs that such sessions be included in the company training schedules. (When standard times are set throughout the battalion, scheduling and supervision are simpler—especially in such dispersed units as air defense or combat service support battalions.) Then the S-3 checks those training schedule activities to insure compliance.

It is absolutely necessary to create an atmosphere in which soldiers can be sure that scheduled activities such as motor stables will actually take place. After a while, compliance becomes automatic and requires less supervision. Such an atmosphere also leads to a less adversarial relationship between the company and the battalion headquarters.

Of course, a battalion commander must make sure all of his officers know how to use the basic maintenance and supply forms and the related management techniques. He should conduct this training himself to demonstrate the importance of the activity, to increase credibility, and to participate in learning with his younger officers.

Meanwhile, the CSM, in his role as senior enlisted trainer, should go into the companies and headquarters to watch the sergeants do their jobs, making sure the First Sergeants are also there. The motor pool is the main setting for his NCO professionalism program, and the training schedule and the 2404 file are his main tools.

An important part of this teaching process for both the battalion commander and the CSM is inspecting company operations.

For his inspection, a battalion commander walks into a motor

pool, selects a health record for one of the vehicles, and calls the "owning" officer and NCO. He reviews and critiques the 2404s for operator maintenance deficiencies on the vehicle and counsels the officer on what is needed to see that such deficiencies do not recur.

During his inspection, the commander checks standing organizational deficiencies to see whether parts are on requisition and whether reconciliations with the direct support unit are being conducted. He also checks publications, particularly the 12-series forms, looks at hand receipts, and follows up on shortages through the supply room.

The CSM also reviews the commander's file of 2404s and critiques the performance of platoon sergeants, section NCOs in charge, and squad leaders. He makes sure that the NCOs understand and support the preventive maintenance program and that they do not fail in the eyes of the platoon leaders, the company commander, or the battalion commander.

In short, starting with the 2404s as a base, the battalion commander and the CSM—with the owning lieutenants and the company commander in tow—check the entire maintenance and supply system within a company.

The battalion commander always throws the problem of checking and assuring that corrective action is taken back to the officer who owns the equipment, or the CSM throws it back to an NCO, if he is the one who owns the equipment. Thus, in a company chain of command, the junior officers and the NCOs see how to do the checking.

After this counseling, the most important thing the "owning" officer or NCO can do is to be there when the equipment is prepared for servicing and to ensure, through the platoon sergeant or section NCOIC, that the operator-



correctable faults are eliminated.

Down at company level, the company commander and the first sergeant function much the way the battalion commander and the CSM do at battalion level. The company commander's chief responsibility is to provide time on the training schedule for motor stables and preventive maintenance sessions and, above all, to make sure the platoon leaders are there. He sees that motor stables are observed, that the commander's file is reviewed, and that equipment and records are checked for corrective action.

The commander must push his platoon leaders to take corrective action and must make sure the company's support structure is really supporting the maintenance program. The motor pool, unit supply room, armorer, NBC NCO, and communications NCO must be available according to the preventive services being performed. The commander should also visit the direct support unit and push it for the necessary assistance and support.

File reviews, battalion inspections, and organizational maintenance technical inspections become the base for evaluating and counseling junior officers and NCOs.

The First Sergeant is the senior enlisted trainer in the company, and this is his most important role. He precedes the company commander in the motor pool and makes sure that PMCS (preventive maintenance checks and services) activities occur and that the NCOs who should be there are there. He critiques the platoon sergeants and squad leaders or section chiefs, and makes sure the company's NCOs do not fail in the eyes of the officers.

In this maintenance-leadership program the greatest advances in officer professionalism and leadership occur at platoon level. The motor pool is a microcosm of all the most difficult leadership problems—it is a place where people and resources must be brought together to perform clearly defined tasks.

A platoon leader plans, along with his platoon sergeant, for the use of those people and resources. He resolves all conflicts in demands for people—such as duty rosters, sick call, personal business—and for equipment, and overcomes the many other obstacles he may encounter.

He also solves the support problem. He reviews the 2404s generated from previous sessions and check with the motor pool, the unit supply room, and the direct support unit to ensure that the required corrective steps are being taken.

The platoon leader—because he is in direct contact with the company commander and the company motor officer and is at the same level as the shop officers and the battalion staff—can make things happen that the vehicle operators and junior NCOs cannot.

Similarly, the platoon sergeant is the most influential in the development of the platoon's NCOs and enlisted soldiers. At the rank of staff sergeant or sergeant first class, he is usually the highest ranking person the junior NCOs and troops come in contact with every day.

For motor stables or preventive maintenance services, the platoon sergeant puts people with equipment. He teaches

soldiers how to do checks and operator services; makes sure tools, supplies, POL products, rags, and other necessities are available for an effective session; and assures that the dispatcher, the mechanics, the PLL clerks, and the unit supply people provide support.

In performing these functions, the platoon sergeant is also teaching the junior NCOs the skills and obligations of leadership. The example he sets in these sessions is more important than a hundred NCO professionalism classes.

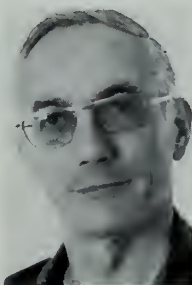
At squad or section level, a successful performance at motor stables will teach the junior NCO more about leadership than just about any other activity. The job is defined; the people are there; there are certain tasks to be performed; and there is immediate feedback that both a soldier and his supervisors can use to evaluate efforts and results.

The NCO accompanies the operator when dispatching a vehicle and assures that all operator checks are performed. He sees that the soldier knows his destination and has all the required tools and dispatch records, that the vehicle is safe and presentable, and that the vehicle leaves the motor pool on time. The NCO tells the operator to report back on completion of the mission. At that time, he assures that the mission has been accomplished, supervises the completion of after-operation checks, and sees that the vehicle is fueled and secured before allowing the soldier to quit for the day.

From the top down, then, this is a model for developing leadership through the preventive maintenance program. Scheduling and the 2404 give a commander two powerful tools for controlling the program. Each officer and NCO has a specific role in preventive maintenance activities that capitalizes on his position and authority. Each supervisor is placed in situations that help him develop his leadership ability while at the same time helping the commander improve the unit's operational readiness.

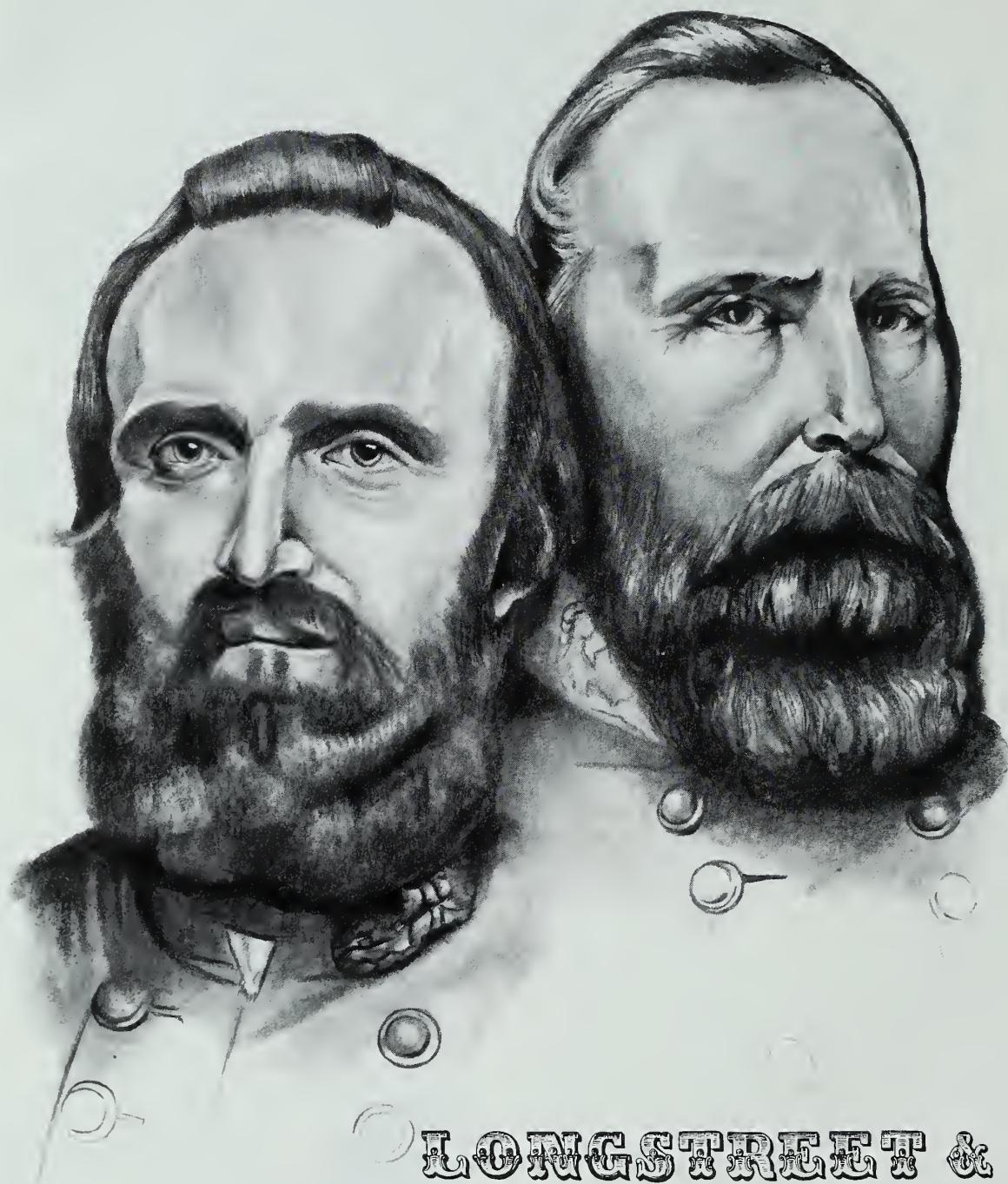
The most important aspect of this model is the potential effect of such a program on the *new* soldier—whether he is a private or a lieutenant. The new soldier is exposed to superiors who are actively involved in creating a positive working environment. From this exposure, he develops habits and expectations of competence, excellence, and concern for subordinates. He will then try to become that kind of officer or noncommissioned officer.

What better way to create an "Army of Excellence" than to display excellence in everything we do?



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**LONGSTREET &  
JACKSON**

**CAPTAIN MICHAEL A. PHIPPS**

General Robert E. Lee's top corps commanders in the American Civil War were Lieutenant Generals James Longstreet and Thomas Jonathan Jackson. The campaigns of both are deserving of attention from historians and biographers. Unfortunately, though, only Jackson has received that attention in any great detail. In fact, he has been all but elevated to the level of deity by some, while Longstreet has been generally ignored, at least in his positive accomplishments. Most of the accounts that there are of his campaigns tend to criticize him for some fault or other.

Some writers, for example, have generally stereotyped Jackson as offense-oriented and lightning quick in maneuver, while characterizing Longstreet as defense-oriented and slow-moving in maneuver. To a certain extent, both characterizations are misconceptions. Jackson was capable of extreme lethargy and fought more defensive than offensive battles. Longstreet and his troops, on the other hand, made some of the greatest marches of the war while delivering numerous sledge-hammer assaults. All of Longstreet's battles except Fredericksburg and Antietam were offensive in nature.

There is no doubt that Jackson is one of the greatest military figures in American history, but if he had been a 20th century U.S. officer he probably would have been relieved. He was successful in only two of his first five campaigns, and that kind of record is no longer tolerated.

On Henry House Hill on 21 July 1861, Jackson became "Stonewall" when his brigade made a gritty stand that was instrumental in the Confederate victory at the first battle of Manassas. Jackson emerged from this amateurish engagement the most famous of any of the combat leaders involved. This was followed, however, by the fiasco of the Romney campaign in the winter of 1861. Jackson's small army in the western Virginia mountains was plagued by poor logistics, brutal weather, tactical fumbling, and a near mutiny by some of the officers and troops.

Again, disaster was close at hand for Jackson when he was defeated at Kernstown, Virginia, on 23 March 1862. Although the vaunted "Stonewall" Brigade was broken in this action, President Abraham Lincoln diverted strong reinforcements intended for George McClellan's Army of the Potomac and sent them to the Shenandoah Valley to contain Jackson. This proved to be a decisive move in that a two-pronged Union drive on Richmond at that time—one south from Fredericksburg and the other east up the York and James River Peninsula—would have been disastrous to the Confederate Army of Northern Virginia. As it was, without the diverted reinforcements, the drive south from Fredericksburg never materialized. But the stage was now set for the campaign that would win for Jackson his reputation as a tactical genius.

During a brief period in May and June 1862, his two-division separate command marched up and down the Shenandoah Valley defeating three separate Federal armies in half a dozen major engagements. His Valley campaign was a masterpiece of maneuver and offensive tactics.

But Jackson soon demonstrated his other side—his lethargy and inconsistency. In late June, Lee ordered Jackson's army to join him in front of Richmond where McClellan's huge army was threatening the Confederate capital.

The Seven Days' Battle (26 June to 1 July 1862) was fought in an area just east of Richmond. Although strategically this was considered a Confederate victory, Lee's new Army of Northern Virginia was plagued by tactical errors and poor coordination. Time and time again—at Mechanicsville, Gaines Mill, Frazier's Farm, Malvern Hill—Jackson, upon whom Lee depended heavily, failed to move quickly enough.

With Jackson's cooperation, a large part of the Union army might have been surrounded and destroyed. Without it, on 2 July McClellan was able to withdraw his forces to the James River, thus ending the campaign. The threat to Richmond was gone, but Lee had been tactically outmaneuvered and had lost 20,000 men. In short, Jackson had inexplicably performed badly after his superb showing in the Valley.

## CONFIDENCE

Still, neither Jefferson Davis nor Lee lost confidence in the hero of the Valley. Jackson performed brilliantly in the next three campaigns although he did, at times, suffer slight mental lapses. (It is significant to recall that in these three battles that led to Chancellorsville, Jackson deployed his troops in defensive actions.)

After Richmond, the next threat to the Confederates in Virginia was Major General John Pope's Union Army of Virginia, which was threatening the railhead of Gordonsville on the upper Rappahannock River.

At this point, Lee reorganized his army into the configuration that it would retain for the next year. Longstreet was given half the army and Jackson the other. (On 6 November 1862, these commands would become the First and Second Corps respectively.) In early August 1862, Jackson's command was sent west to engage Pope while Longstreet stayed near Richmond to watch McClellan. (McClellan's troops did not totally evacuate the Peninsula until September.)

Jackson was in peak form during the next month. He defeated a Federal force at Cedar Mountain on 9 August, then began a tremendous flank march around Pope's right flank along the Rappahannock. After destroying the Union supply base at Manassas Junction, he withdrew to a strong defensive position near Groveton, where Pope assaulted him for three days (28-30 August). Jackson held long enough for Longstreet's corps to crush the Union forces on the last day of the battle.

This was the only other campaign in which Jackson drove his men as quickly as he had in the Valley. More importantly, it was here that he demonstrated his proficiency in the defense. In this and his next two engagements, at Antietam and Fredericksburg, "Stonewall" would live up to his name with stubborn tenacity. He said, "My troops may fail to take a position, but are never driven from one." (This is a fact that few historians emphasize.)

Jackson was one of the first modern era combat leaders to use defense in depth. At Fredericksburg on 13 December 1862, Antietam on 17 September 1862, and Second Manassas (29-30 August 1862), Jackson used three defensive lines of battle. In each of these battles, when his front line was pene-



trated, he was able to plug the gap with a secondary line or with his reserves. During this period, his only "failure" was his delay in capturing Harper's Ferry during the Antietam campaign. He was two days late in doing so and just managed to join Lee before McClellan struck the Army of Northern Virginia. This delay might have been more serious than it turned out to be. While the Army of the Potomac could have attacked Lee as early as the 15th (the day Harper's Ferry was taken), McClellan did not attack until the 17th and thus allowed the Confederate Army to concentrate.

In late April 1863, Major General Joseph Hooker split his huge Army of the Potomac and sent three corps northwest to cross the Rappahannock and Rapidan Rivers and flank Lee's impregnable position on the heights south of Fredericksburg. By 30 April the maneuver wing of Hooker's army had moved virtually undetected onto the Confederate left flank at the small crossroads named Chancellorsville. The main body meanwhile threatened Lee at Fredericksburg.

At this point, Hooker strangely became conservative and ordered his right wing to "dig in" in the tangled underbrush known locally as "the Wilderness." He sent for all but his Sixth Corps to join him at Chancellorsville. Lee had only 55,000 troops available in six divisions. (Longstreet, with two divisions, was operating in southeastern Virginia at the time.) Leaving one division to watch the Union Sixth Corps at Fredericksburg, Lee sent two other divisions to meet Hooker and fix him in position. Lee wisely had Jackson's corps follow as one large body to exploit any opening Hooker might offer.

The Confederate lead elements found five Union Corps dug in around Chancellorsville. However, J.E.B. Stuart, Lee's cavalry commander, reported on the evening of 1 May that Hooker's right flank was "in the air." Lee, *not* Jackson, then decided to split his already separated army and strike the Union force in the flank. Jackson was to march three divisions around the Federal right and try to cut Hooker's units off from the Rapidan crossings. Jackson told Lee he would start his movement at 0400, 2 May.

## DELAY

The dramatic assault on the Union Eleventh Corps by Jackson's men and the flank march are well documented and will not be reiterated here. What historians do not detail, though, is that Jackson did not start his march until 0730, three and one-half hours after the proposed departure time. As a result, the assault did not begin until 1715. There cannot be much doubt that the Confederates, even against the stout Union resistance, would have gained much more ground, possibly capturing the Rapidan fords, if darkness had not set in around 1930. Those three hours of lost daylight may have saved Hooker from complete destruction, and may have cost Jackson his life: As he returned from a reconnaissance in the dark, he was shot and mortally wounded by his own troops who mistook him for the enemy. He died of his wounds on 10 May 1863.

Fifty-two days later at a town called Gettysburg, his replacement, Lieutenant General "Dick" Ewell, hesitated in

front of a crucial hill. Many, including Lee, felt that Jackson would have taken that hill and that as a result the war might have ended differently. This is certainly possible. These same people seem to forget, however, that exactly one year earlier, Jackson had hesitated in front of Richmond. If he had not, Lee's invasion of Pennsylvania may not have been necessary.

Even so, few Civil War actions come close to the genius of Jackson's Second Manassas or Valley campaigns, and no one would want to deny him that credit. But Longstreet's performance in those years is also worthy of note. He was more consistent and at times quicker on the march than Jackson. And although he did favor the tactical defense, he could also hit as hard as any in the assault.

At First Manassas, then a brigadier general, Longstreet performed quite well but was not heavily engaged. His first major battle was on the peninsula at Williamsburg on 5 May 1862. In a spirited assault as a division commander and a major general, he gave the leading elements of McClellan's army quite a jolt. After Williamsburg, his division covered itself and him with glory with its savage but uncoordinated assaults at Fair Oaks, Gaines Mill, and Frazier's Farm. Lee was quite impressed with "Old Pete" Longstreet's tactical ability after the Seven Days' Battle and gave him command of half of the Army of Northern Virginia.

At Second Manassas, Longstreet delivered one of the most devastating assaults of the war. On 29 August 1862, Pope's Union army was attacking Jackson's corps that was posted in an unfinished railway cut near the old Bull Run battlefield. Longstreet's 30,000 troops moved rapidly through the Bull Run mountains and linked up with Jackson's men on the same day. They were squarely on Pope's left flank. Because of a poor reconnaissance effort, the Union commander never fully realized this danger. Although Lee wanted Longstreet to attack on the 29th or early on the 30th, Longstreet recommended patience. Allowing the Federal troops to exhaust themselves in frontal assaults against Jackson, Longstreet surged forward and crushed the Union's left flank on the afternoon of the 30th. Pope's army retired to the northeast, thus ending the battle.

After Second Manassas, Longstreet, by then a lieutenant general, fought his only two real defensive battles. At Antietam most of his troops were used as local reserves for Jackson's line, which was assaulted unmercifully on 17 September 1862. Although he was not able to demonstrate his overall tactical ability, he constantly took command of numerous small-unit actions throughout the day while fearlessly exposing himself to enemy fire. (It was here that Lee called him "My Old War Horse.")

Just as Jackson was remembered for his stand on Henry House Hill, Longstreet gained his reputation as a tough defender at Fredericksburg on 13 December 1862. Observing the open plains that Major General Ambrose Burnside's Army of the Potomac would have to cross to attack his corps on Marye's Heights, Longstreet stated bluntly, "If the entire Union army comes across there, I will kill them all."

As if to test him, three Federal corps marched toward Marye's Heights on that mid-December day. Longstreet was true to his word—9,000 valiant Yankees fell in front of the

now famous Heights. None of them came within 30 meters of Longstreet's main line.

The First Corps commander spent the spring of 1863 in southeastern Virginia and missed the battle of Chancellorsville. But up the road Little Round Top, Devil's Den, the Wheatfield, and Cemetery Ridge awaited him in the peaceful Pennsylvania countryside.

## MYTHS

Even today, few people really understand the actual details of the Battle of Gettysburg. One of the chief misconceptions concerns the role that Longstreet and his corps played in the engagement. Four of the most prominent myths are that Lee ordered Longstreet to attack the Union left at dawn on 2 July; that Longstreet delayed unduly during the march into an assault position on the second day of battle; that Lee ordered the Round Tops captured; and that "Old Pete" did not control his units well at Gettysburg.

The mysterious "sunrise attack order," as one historian terms it, has never been found in any official Confederate records. Pendleton, Lee's artillery chief, later claimed he had heard Lee issue that order. But Pendleton, along with Early and others, had a running battle after the war with Longstreet, and their accusations are questionable at best.

Most historians now agree, however, that Lee did not decide on a definite plan for Gettysburg until 1000 or 1100 hours on 2 July. This thesis is documented by a simple examination of the Confederate troop dispositions at dawn on the second day. Two divisions of Longstreet's First Corps, led by John B. Hood and LaFayette McLaws, were three miles behind the main Confederate positions and had been marching all night. The other First Corps division, George E. Pickett's, was still 25 miles to the west of Chambersburg, while E.M. Law's brigade of Hood's division was 25 miles away at New Guilford.

In other words, Longstreet had only seven of his eleven brigades to take into action early on the 2d. On the other hand, A.P. Hill's Third Corps and Richard S. Ewell's Second Corps had 11 fresh brigades actually in position at dawn. If Lee had wanted an early attack, then Hill and Ewell would have had to deliver it. With six divisions already facing Major General George Meade's Army of the Potomac, it would have made no sense for Longstreet to force march into unfamiliar terrain to lead the assault at dawn.

Lee did not seriously consider taking action until Hood and McLaws were in the field and in a position to strike Meade a crippling blow. At about 1000 hours, the Confederate commander ordered his First Corps to move south and assault the Union left and rear. A vital point that has to be addressed here is that Lee felt the main enemy force was on Cemetery and Culp's Hills facing north. His plan, therefore, was for Longstreet to advance northeast up the Emmitsburg Road. Hill would support him while Ewell demonstrated against the two hills.

The problem with Lee's plan was that the actual Union line was in a "fishhook" configuration extending south to

Little Round Top, and if the First Corps forces had paralleled the Emmitsburg Road before 1500 hours, they would have been flanked by the Federal forces on Cemetery Ridge.

At 1500 hours, Major General Dan Sickles moved his veteran Union Third Corps off Cemetery Ridge and Little Round Top and advanced westward toward the high ground around the Peach Orchard. So, contrary to popular notion, Longstreet, *not* Lee, lined McLaws and Hood up facing Little Round Top so as to strike Sickles' exposed troops. Lee's original plan could not work with Sickles blocking the way. Longstreet, accordingly, sent his men after Little Round Top and Cemetery Ridge instead of Cemetery Hill.

Five hours after Lee ordered Longstreet to attack, the First Corps struck. (Because of the delay, Law's brigade was able to join Longstreet.) This "delay" has been blamed on the "Dutch" slowness of Longstreet. Douglas Southall Freeman, the noted Civil War historian, even suggests that he was sulking. This is a ridiculous assumption. In reality, two orders issued by Lee caused the lapse of time between the order and its execution.

The first order Lee gave was that the First Corps was not to move until the route of march had been scouted by a Captain S.R. Johnson. Captain Johnson did not report to Longstreet until almost 1400, whereupon Hood and McLaws began to move. Lee's second order was that the column was to stay concealed during the march. When the lead elements reached Black Horse Tavern, Captain Johnson saw that if it continued it would be exposed to the view of a Union signal station on Little Round Top. In strict obedience to Lee's orders, therefore, Longstreet ordered his corps to turn around and use a more concealed route.

As for the contention that Longstreet did not control his units well in the attack on the 2d, nothing could be further from the truth. No two divisions in United States military history fought harder or were more competently led than were Hood's and McLaws' on 2 July 1863. These 14,000 Confederates assaulted almost 30,000 Federals. They captured the Peach Orchard, the Wheatfield, and Devil's Den, and came within a hair's breadth of taking Little Round Top and southern Cemetery Ridge as well. Longstreet's *en echelon* assault (a maneuver in which one brigade at a time attacks and probes for a weak spot) shattered the Union Third Corps and enveloped seven brigades from the Second and Fifth Corps in the Wheatfield area.

## REALITY

The reality is that it would have been virtually impossible to break the Federal left. In fact, Meade shifted more than half of his army to meet those two divisions.

This left only five fresh brigades and the remnants of the shattered First and Eleventh Corps (17,000 men) to oppose Lee's remaining six divisions of 40,000 troops. But these Confederates either attacked in an uncoordinated fashion or remained inactive. This was Lee's opportunity to break Meade's line, but the sheer weight of numbers meant Longstreet's men were to be sacrificed. (They suffered better than



50 percent casualties.) But Hill's and Ewell's weak efforts meant that the sacrifice was to be in vain. Pickett's charge and repulse inevitably followed on 3 July 1863.

Despite his disgust at the failure at Gettysburg, Longstreet still had two great battles left. When Jefferson Davis decided to reinforce Lieutenant General Braxton Bragg's Army of Tennessee, Lee sent his "War Horse" with Hood's and McLaws' divisions to northern Georgia. These veterans arrived by rail just in time to play a crucial role in the battle of Chickamauga on 19 and 20 September 1863. The "slow" and "defense oriented" Longstreet launched an all-out assault that shattered the Union center and sent half of the Army of the Cumberland fleeing toward Chattanooga. After Longstreet's only real failure of the war—his failure to capture Knoxville in November 1863—his troops rejoined Lee in Virginia.

## GRANT

In the spring of 1864, the Army of the Potomac was poised above the Rapidan preparing for its last campaign. This time it would be led by Lieutenant General U.S. Grant. Lee's decimated but still formidable Army of Northern Virginia awaited Grant in the vicinity of Orange. Grant finally moved on 4 May into the same wilderness where Hooker had met disaster a year earlier. Ewell's and Hill's corps were closer to the southward line of Grant's march than was Longstreet's command, so Lee met Grant's men with these two corps while "Old Pete" marched hard for the field. Fighting raged on 5 May about five miles west of Chancellorsville.

Grant was like no other commander Lee had faced before, though, and the hardened Union veterans launched heavy assaults time and time again. On the morning of the 6th, A.P. Hill's corps was shattered by a massive push by Major General Winfield Hancock's Union Second Corps. As these Federals victoriously advanced, they were stunned by one of the most timely counterthrusts of the war.

By forced marching and double-timing all day on the 5th and through the night, the First Corps arrived and attacked just as Hancock's men had become somewhat disorganized in their advance. The Federals fell back, but Longstreet, in a brilliant tactical move, sent a flanking force through an unfinished railway cut, and that force caved in Hancock's left. As Longstreet and a few members of his staff rode forward, shots rang out and Longstreet went down, shot by his own men in generally the same area where Jackson had met the same fate a year earlier.

But the "War Horse" recovered and rejoined the army on 19 October 1864. He commanded his corps and the Richmond defenses until 2 April 1865 when Grant's all-out attack at Petersburg forced Lee to retreat to Appomattox. Longstreet's corps went with Lee, and to the end "Old Pete" opposed surrender.

In comparing Longstreet and Jackson, no one would deny that Jackson was a true military genius who excelled in independent missions. Few Civil War actions even approach the genius of Jackson's Second Manassas and Valley cam-

paigns. But objective historians should analyze the mediocre along with the superb. Although one historian likened him and his flank march at Chancellorsville to Frederick the Great and his victory at Leuthen, Chancellorsville was Lee's victory, not Jackson's. (In fact, by starting his flank march late, "Stonewall" may have cost the Confederates a chance at a total victory.)

Longstreet was also a great military leader. Within the confines of an army, it would be difficult to find a finer corps commander. So why has he been either falsely characterized or generally ignored? For one thing, Longstreet became a Republican after the war and was therefore branded a traitor by Southern writers. The chief reason, though, was the Confederate defeat at Gettysburg.

After the Confederate fiasco there, everyone was looking for scapegoats whose actions might explain the defeat. Although Stuart, Ewell, and A.P. Hill received their share of the criticism, much of the weight was placed on Longstreet's shoulders. This was all part of an effort after the war to exonerate Lee of any mistakes or tactical errors. (Even today, to blame Lee for a defeat is sure to bring many angry cries.) The tragedy of this is, however, that Longstreet's performance at Gettysburg was far superior to that of the other Confederate commanders, including Lee.

As Donald Bridgman Sanger states in his biography of James Longstreet:

*Without possessing the strategic ability of either Jackson or Lee, [Longstreet] was, I believe, superior to both in battle leadership and in an appreciation of tactical values. He knew instinctively the exact moment for the counterstroke. Defensively, he was, as Grant said, Lee's best general, and the crushing effect of his well-timed assaults at Second Manassas, Chickamauga, and the Wilderness are eloquent testimonials of his skills on the offensive. He was the best fighting general in the armies of the Confederacy and the best corps commander, north or south.*

Sanger's statement is a bit strong, of course; some would bring up the names of George Thomas, Winfield Hancock, and John Reynolds as corps commanders to rival Longstreet. Such debates are likely to continue.

But it is high time Longstreet's name was at least mentioned in the same breath as Jackson's. And high time the empty shelves alongside the only two Longstreet biographies were filled with more objective accounts of his accomplishments.



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## Law of War Training A Practical Program

CAPTAIN FREDERIC L. BORCH III

Training the individual soldier in the law of war is more important today than ever. Casualties on the modern battlefield could eliminate a unit's existing leadership quickly and turn a young infantry private into a platoon sergeant or First Sergeant in a matter of days. As a leader, this soldier would then become responsible for the conduct of his subordinates.

In addition, the politically sensitive nature of future conflict means that each individual soldier, not just unit leaders, must know his rights and obligations under the Hague and Geneva Conventions if he is to protect himself, his unit, and our nation.

Unfortunately, our law of war training all too often is dull and uninteresting and usually takes the form of classroom lecture. Yet, just as infantry training cannot be taught completely in a classroom, so law of war instruction is inadequate without field training. Leaders at all levels, therefore, in conducting their law of war training programs, must integrate garrison with field training and must find practical ways to organize it.

A good way to conduct law of war training for soldiers in garrison is to begin with a 90-minute period of instruction featuring 50 minutes of excerpts from the 1980 Australian film *Breaker Morant*, followed by a 30-minute lecture

and a 10-minute question-and-answer period.

This film is based on a true incident that occurred in 1901 during the Boer War in South Africa, the first modern war in which a regular army (the British) was confronted with a guerrilla force that wore no uniforms and was therefore indistinguishable from the rest of the population. Faced with this nearly invisible enemy, the British developed several combat units that used, as far as possible, the same tactics. The film deals with one of these units, the Bushveldt Carbineers, and the court-martial of three of its officers for sanctioning the execution of prisoners of war.

### RESPONSIBILITY

The movie is an outstanding teaching tool because it directly addresses the moral responsibility of a soldier in modern warfare: Should he simply obey orders — in *Breaker Morant*, an oral order from higher headquarters not to take prisoners of war—or does he bear a degree of personal responsibility for the execution of these orders?

For teaching purposes, the issue can be addressed squarely by presenting video tape segments from the film that mix

scenes showing the killing of prisoners with the subsequent court-martial of the responsible officers. The result is a thought-provoking story on film that heightens a soldier's interest in the role of the law in war; it certainly captures his attention.

(I recommend the following excerpts, in the order stated: the execution by firing squad of Lieutenants Morant and Handcock; the death of Captain Hunt; the execution of Boer PW Visser for wearing a British khaki uniform; the court of inquiry including testimony of Sergeant Major Drummond, Captain Taylor, and Captain Robinson; the Boer attack on the fort; the trial of Lieutenants Morant, Handcock, and Wilton; the murder of Reverend Hesse; the closing argument at the trial of Major Thomas. The credit for using *Breaker Morant* as a teaching tool belongs to Major Robert Higginbotham, who first used these film excerpts while serving as an instructor at the U.S. Army Infantry School, Fort Benning, Georgia.)

Army Regulation 350-216, which implements the Department of Defense Law of War Program, requires in part that law of war instruction stress a soldier's rights and obligations regarding enemy soldiers, civilians, and property; his own rights and duties as a prisoner of war (PW); and the consequence of mistreating



civilians and PWs.

These required subjects can be presented in the 30-minute lecture that follows the film excerpts, and the excerpts themselves can be used to illustrate important legal points. For example, Lieutenant Morant's order to his men to execute Boer PWs can be used to demonstrate the illegality of a superior's command, the duty of a combat soldier to disobey it, the requirement for that soldier to report the shooting of PWs as a war crime, and the punishment he may suffer if he violates this law of war.

## POIs

Law of war training that does not require a specially trained instructor can be implemented during regular unit garrison training periods by using programs of instruction (POIs) prepared for this purpose. Thus, one POI could consist of a written lecture 10 to 12 minutes long (with references to army regulations, field manuals, and training circulars) and a scenario in which several soldiers are used as actors.

For example, a POI on the status of enemy wounded and medical personnel first should have a short lecture on the applicable Geneva Convention. The scenario can then have two armed enemy soldiers wearing armbands with a red crescent on a white background carrying a litter on which an unarmed enemy soldier is lying. The soldiers being trained must recognize the emblem displayed as indicating a medically trained person. Furthermore, the soldiers must know that enemy medical personnel are not to be harmed as long as they are recovering the wounded and not trying to gain a tactical advantage.

The best POI is keyed to its audience. An in-garrison POI program to be presented to medical personnel, for example, should focus on items of particular relevance to them. An in-garrison POI for paratroopers, on the other hand, should focus more on the treatment of enemy civilians and property. A POI should be designed to permit training anywhere and anytime, particularly so that it can be used in inclement weather.

Law of war instruction to be given in

a field situation must also be tailored to the combat unit being instructed and must be as realistic as possible. A medical aidman in an infantry company, for example, needs to know that he can carry a weapon, use it in self-defense, and use it in the defense of the wounded or sick in his charge. Useful field training might be designed around this recognition that a medical aidman does not lose his special status under the law of war merely because he defends himself against an enemy who attacks him or the sick and wounded in his care.

A practical example in law of war training is the instruction that was given to the 4th Battalion (Airborne), 325th Infantry Regiment (4/325 ABCT), during its March 1984 field exercises in the town of Bonnland, Federal Republic of Germany. Bonnland is an actual town in Bavaria, but now depopulated and used by the German Army (*Bundeswehr*) for training in urban warfare. This urban area is ideal for law of war instruction, because in close combat a soldier is more likely to be confronted with capturing enemy personnel and processing them to the rear or to be taken as a PW himself. In either situation, the teaching is focused on the Geneva Convention relating to prisoners of war.

## EXAMPLE

The instruction in Bonnland was given to each of the six company-sized units in the 4/325 ABCT. Using the battalion legal clerk and four other soldiers as actors, the instructor began a practical exercise with a short lecture that underscored the point that each man who seeks a career as an infantryman will probably be faced with a situation in which he will take enemy soldiers prisoner. The five soldiers were used as demonstrators to show how captured enemy personnel should be treated in accordance with the Geneva Convention. For instance, the legal clerk and a second soldier played the roles of U.S. personnel who had just captured three enemy combatants. While one soldier covered them, the other disarmed the enemy soldiers. Because basic training for an infantryman emphasizes

the five S's when dealing with PWs — Search, Silence, Segregate, Safeguard, Speed to the Rear — these were also incorporated in the training. Additionally, the instructor emphasized that protective equipment (helmet, protective mask, first aid pouch) may not be seized, nor may items of a personal or sentimental nature (rings, watches, family letters and photographs) be taken, except that an item of value, such as currency, may be taken if so ordered by an officer and if a receipt is given to the PW.

## WEAPONS

Weapons can be seized, of course, such as rifles, pistols, and knives, but even ball point pens and keys can be dangerous, so they too should be confiscated. Items of interest to military intelligence (maps, plans, operation orders) definitely should be taken.

In demonstrating search techniques, the soldiers were taught to first have the enemy soldiers assume one of two positions — on their hands and knees, or "spread-eagled" against a wall. Actually, any method is acceptable as long as the proper security is maintained. The training emphasized the fact that the soldiers searching the enemy must never be in the line of fire between an enemy PW and the covering friendly soldier.

The demonstration concluded with the reminder that a soldier has a duty to shield PWs from ongoing hostilities while moving them to the rear and that there are limitations on interrogating PWs (they need give only their name, rank, service number, and date of birth).

Two soldiers from the audience were then chosen at random to search and disarm the remaining two demonstrators. To heighten realism, a switchblade was hidden in either the helmet liner or boot of the "enemy" soldier. This weapon usually was not found during the initial search, and its disclosure later illustrated the need for the soldiers to be thorough in their searches.

After this hands-on training, a short lecture (15 or 20 minutes) was presented on the rights and duties of a U.S. soldier who is captured by the enemy. Included in this lecture was a discussion of the

Code of Conduct, its applicability to U.S. personnel in captivity, and its importance to morale and discipline. Additionally, the audience was reminded that criminal sanctions under the Uniform Code of Military Justice apply to a PW who aids the enemy or acts to the detriment of his fellow PWs.

Leaders at all levels need to demand law of war training for their units that combines classroom instruction and field

training. An integrated program of such training will make the Hague and Geneva Conventions more meaningful for the individual soldier. A film such as *Breaker Morant* can address the moral responsibility of the combatant in modern warfare. Hands-on law of war instruction, like the training at Bonnländ, will capture attention and heighten interest. The result will be a soldier who recognizes that law does have a place in war.



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# The M203 in Urban Fighting

CAPTAIN CHRISTOPHER E. ALLEN

During training for military operations in urban terrain, infantry commanders soon realize how isolated small units can become when they are engaged in an urban fight. As a platoon disappears down a side street or a squad enters a building, the leaders of those small units face the challenge of accomplishing their missions without being in the familiar line of sight or range of voice control of a senior commander.

Urban terrain magnifies the importance of strong squads built around aggressive fire teams manned by proficient, confident soldiers. The company commander who neither trains nor trusts his squads to seize the initiative when they are isolated from their parent units will fail to control the momentum of an urban fight.

Accordingly, sections, squads, and platoons must become self-reliant in urban combat, and a company commander must take the responsibility for training his combat teams to fight independently and win even in the absence of external support. A part of this training should be specifically designed to make sure his combat team members are fully profi-

cient with the weapons they have. A commander cannot afford to accept anything less than a professionally trained soldier on each key weapon system in his unit.

One of the most versatile weapons a platoon has, but one that is often wasted, is the M203 grenade launcher. If a unit's grenadiers are properly trained, a fire team can lob a grenade into a room or basement aperture from 150 meters, or cause casualties and create shock in an enemy unit moving down a city street at a range of more than 350 meters. Since a rifle platoon can mass six grenade launchers in support of an assaulting squad, a well-trained small unit can forge its own success in the absence of indirect fire or armor support. Unfortunately, platoons lose many opportunities to use the M203 in city fighting because the average street width is less than the aiming distance of the round, or because tall fences or walls that permit observation of a potential target obstruct its engagement with the 40mm grenade. In these situations, the grenadiers do not realize that there is a method—though an unorthodox one—that they can use to employ their weapons effectively. This method

is a simple revival of the high angle fire technique used with the M79, as outlined in FM 23-31. With it, what was once deadspace can be made into a kill zone.

Given some exposure to this technique, grenadiers and small unit leaders soon realize that the M203 is essentially a 40mm mortar that is capable of engaging targets high above ground—roof-top snipers, for example, while a clearing team bounds into a building. It can also be fired from a defilade position behind a wall at a known target using range card data.

While this method is far from perfect, in the hands of a trained gunner it does increase the fighting efficiency of the small unit, not only in urban combat but in many conventional situations as well.

Teaching the high angle firing technique does not cost much in the way of time and resources. In fact, it can be part of a unit's concurrent training program when it undergoes its standard M203 range qualification. This training should be taught in two phases, the first of which should be used to introduce the concept and its potential uses and to explain a simple elevation technique for controlling range.



This technique is similar to the marked sling method used with the M79 and shown in the manual. It consists of a weighted string attached to the right side of the front sling swivel (as shown in the photograph) to help a gunner achieve



the proper high angle for the desired ranges. At various pre-marked points the weighted string will hang in a particular relationship to the butt of the weapon. The table gives a fairly accurate estimate of the angle of elevation for various ranges and the distance the string should hang out from the butt of the weapon to achieve that angle.

After a gunner gets the feel of this kind of firing, the weighted string, while still desirable, will no longer be necessary.

The second phase of instruction should be conducted at the firing line so the soldiers can experiment under close supervision. The most effective round to use for this firing is a smoke streamer round from the M696-M701 series. Each gunner should be allowed 10 smoke rounds.

A smoke streamer provides an advantage over TPT rounds in that soldiers can visualize the trajectory of each shot and can adjust for the proper point of impact. (Because of the near perpendicular angle of incidence at the target surface, TPT marking powder does not splash well and is therefore difficult to identify.) With the smoke round, most new gunners can come within five meters of the target with the first four rounds. Accuracy greatly increases with the amount of experimentation each gunner does.

Subsequent sustainment training can be accomplished with ten smoke rounds being allowed each gunner when the unit conducts its M203 qualification firing. Leaders should also make a point of showing their grenadiers when this technique could be used during training exercises in the field and during MOUT exercises.

Here are a few points to bear in mind with M203 high angle fire:

- Because of the potential for error with the M203 in high angle firing, soldiers in training should be closely monitored. At ranges of less than 200 meters, small movements of the weapon produce great decreases in range.
- The time of flight for the projectile

RANGE	ELEVATION	STRING DISTANCE
0 M	90°	-2"
50 M	85°	+½"
100 M	81°	+2"
200 M	69°	+6"
300 M	58°	+14"
400 M	41°	+19"

is between 10 and 14 seconds. This increases a round's exposure to wind vectors, which affect range and deflection more than when it is fired at a low trajectory. For this reason, a round should not be used for training at less than 150 meters.

• The maximum ordinate of flight is about 150 meters. Shots can be made on top of or over 15-story buildings with angles of as little as 75 degrees. With taller buildings, however, there is a risk of an overhead burst that might endanger friendly troops.

When used for high angle firing, the M203 should be considered a supplementary technique that increases the flexibility and self-sufficiency of small units in urban terrain. Becoming proficient with this technique should be a challenge to the grenadier who wants to be a professional with the M203. By exposing his grenadiers to this method, a company commander can increase the capability and fighting power of his unit.

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## Live Fire Exercises

CAPTAIN GARY A. BRACHT

The commander's and platoon leader's orders had been issued, rehearsals conducted, and final coordinations completed. As the time to cross the line of departure approached, last minute weapon checks were conducted. At the

attack position, the order was quickly passed to lock and load. There were no blank adapters or dummy demolitions. Instead, each soldier had been issued his basic load of ball ammunition. The M203 gunners' ammunition vests bulged with

40mm target practice and smoke rounds. The attached engineer squad members carried their satchel charges and bangalore torpedoes. The 90mm recoilless rifle gunners and assistant gunners arranged their flechette rounds to be readily

available when they were needed.

This infantry company team was preparing for a live fire deliberate attack against an "enemy" with extensive wire obstacles and prepared defensive positions. The attack was to be a graded exercise for the unit based on the standards in ARTEP 7-15. Once contact was made with the "enemy" force, it would take an hour for the company to secure its objective. The company team would open multiple lanes through the wire obstacles and destroy several bunker complexes while conducting continuous fire and maneuver.

This training event was only one of many similar live fire exercises that my company in Alaska conducted, exercises that ranged from squad to company level. The exercises substantially increased the confidence of the individuals and leaders in themselves and in the unit. This was especially noticeable in the trust they showed for their fellow soldiers and their equipment.

The procedures used to conduct exercises such as these are not exotic, and they do not require much more coordination by a company commander and the battalion S-3 than any other training event requires. Particular items do deserve special attention, though.

Individual training and leader training must be conducted regularly before a live fire exercise begins. If the soldiers have difficulties in conducting ARTEP and individual tasks with blank ammunition, they will gain little from the additional pressure of firing live ammunition and will usually waste precious resources (time, ammunition, and training areas) as well. Too, any units that are to be attached for the live fire exercises must work with the supported unit on a continuing basis. If this coordination is conducted in all training events, mutual trust and confidence are established at the outset.

Preparing a training plan for a live fire exercise begins when a commander selects the ARTEP task he wants to accomplish—movement to contact and hasty attack, deliberate attack, defense, antiarmor ambush, or a raid. Once the commander has identified the task, and any supplemental tasks, his chief planner then must review the range regula-

EVENT	TIME
Approval of scenario, safety fan, and safety plan	6-8 weeks prior
Request support and attached personnel	Per unit SOP
Movement to assembly area	0800-1100 (the same day of the live fire)
Ammunition arrives at assembly area	0900
Safety personnel posted at key spots	1000
Unit arrives at assembly area and conducts final rehearsals	1100-1230
Ammunition issued to soldiers	1230-1330
Safety briefing to chain of command	1330-1345
Range sweep by assistant safety officer in OH-58	1330-1345
Range opened in "dry" status	1345
Unit crosses line of departure	1400
Range opened in "hot" status*	1415
First contact with "enemy" forces (LP/OPs)	1430-1445
Seizure and occupation of objective	1530-1600
After-action review and ammunition shakedown	1615-1630
Movement to next training site or to garrison	1630
*An alternate time can be identified if events prevent opening the range at the established time. Concurrent training can be used to make up the time difference.	

Table 1

tions for his post. He may find, for example, that several weapon systems cannot be used in offensive operations because of their dud-producing capability. After reviewing the regulations, he selects a site or "lane."

Safety personnel must be stationed at every key road intersection that leads into the safety fan and maneuver area. As an added safety measure, if possible, an OH-58 helicopter with an assistant safety officer can operate above the area to reduce the number of safety personnel needed on the ground. The OH-58 can also conduct a final safety check to spot anyone who may have accidentally entered the maneuver or impact areas.

A senior safety officer should be with the unit conducting the live fire exercise to monitor it and to see that it stays within the designated maneuver area and oriented on the impact area. He should carry an FM radio to monitor the post's range control frequency. If range control requires a cease-fire, the safety officer can immediately notify the commander in person to check his fires. He should also carry red pyrotechnics for use as backup emergency signals in case a cease-fire is required. (This is especially important if the live fire is conducted during periods of limited visibility.)

The rest of the safety tasks for the range should be handled by the existing

chain of command of the maneuver unit, and if those people do their jobs right, safety will be no problem. To the uninitiated, this policy may seem reckless, but it works very well, and reduces the number of safety personnel required on the range.

The safety fan for the range must extend beyond the maximum range of the weapon systems being fired during the exercise. The left and right limits should be wide enough to avoid having to place "barber pole" markers to identify the sectors. (These markers detract from the realism of the objective.) The approval of the safety fan also must include approval of the air space above the range; some ranges, for example, may have air corridors above them that are used by military and civilian aircraft.

The objective for a live fire exercise can be as elaborate as the planner wants to make it. For instance, the engineers can design and emplace Soviet style trenches, obstacles, and bunkers. "Enemy personnel" can be simulated by "E type" silhouette targets dressed in Class X fatigues with balloons pinned to their chests. A broken balloon can then represent a kill of the target. Property disposal vehicles, towed on long ropes or cables, can be used as moving targets for a unit in an antiarmor ambush.

Electrically fired demolitions can be



TYPE	Co movement to contact/ hasty attack	Plt personnel ambush	Plt antiarmor ambush	Co deliberate attack	Co defense	Squad raid
5.56 ball	3000	2000	1500	5000	3000	600
5.56 tracer	200	50	50	200	200	20
7.62 4:1 mix	2400	800	800	2400	2400	400
40mm practice	200	40	40	300	200	15
40mm smoke	80	10	10	80	20	4
35mm LAW subcal	20	0	6	20	20	0
90mm HEAT/Dragon	0	0	4/2	0	12/4	0
90mm Flechette	18	4	2	18	12	0
Claymore	0	4	4	0	18	0
C-4/TNT (pounds)	5-10	0	0	10	0	2
Smoke grenade various colors	18	4	4	18	10	4
Red Star and smoke	2	2	2	2	2	2
Star cluster/ 40mm cluster various colors	6	6	6	6	6	2
81mm HE	0	0	0	0	20	0
81mm WP	0	0	0	0	10	0
81mm Illum	0	0	0	0	10	0
Hand grenade simulators	50	10	0	70	0	10
Bangalore torpedoes	2	0	0	3	0	0
Satchel charges	2	0	0	3	0	0

**Note:** 100-man company (light infantry); 25-man platoon; 8-man squad (includes attached machinegun).

Table 2

placed on an objective. When fired by the safety officer in conjunction with "preparatory fires" on the objective, they can represent incoming artillery rounds. (A word of caution: the firing leads to the demolitions should be buried at least six inches deep, otherwise suppressive fire on the objective can cut the firing leads and result not only in demolition misfires but also in needless cease-fires while the misfired demolitions are fixed.)

## ALLOW FOR DELAYS

As with all operations, the planner must allow enough time on the range for unanticipated delays (such as ammunition that is late in arriving or weather conditions that unexpectedly close ranges). If the unit coordinates with range control personnel for several specific periods of "hot" times on the range

(usually one-half to one and one-half hours) with the rest of the range time identified as "dry" time, all operations can be accomplished even with some unexpected problems. (A sample time schedule is shown in Table 1.)

For company level operations, the company executive officer or battalion S-3 should be responsible for setting up the objective. This keeps the company commander from wargaming the objective before the actual event. In fact, for the maximum training benefit, none of the leaders should see the objective before the live fire exercise is actually conducted. If they do, they lose the training benefit of having to assess the situation and issue fragmentary orders based on the actual conditions.

To add training benefit and realism, soldiers should be required to lock and load their weapons when they leave the attack position (if not sooner), as they would do in an actual combat area.

Once a unit completes an exercise, the unit leaders should conduct an after-action review along with the safety officer. Only with an effective critique or review does a live fire exercise become a valuable training tool and not a John Wayne shoot-'em-up. I have learned several common lessons from these reviews:

- Soldiers are initially reluctant to conduct fire and maneuver when live rounds are being fired, but this reluctance disappears after one or two live fire exercises.

- Fire control measures and fire discipline require constant attention and emphasis.

- Leaders initially try to shout over the sounds of the firing instead of moving to the person they need to talk to. Soldiers must look to their leaders for hand and arm signals, and radio-telephone operators must keep their handsets at their ears if they expect to hear any radio transmissions.

- Platoon leaders have to make sure they control the fires of their crew-served weapons, and squad leaders have to direct the fire of their LAWs and organic weapons.

Although ammunition expenditures may have to be modified because of local situations, my company used the ammunition shown in Table 2 for various live fire exercises. These amounts would be used for a fairly difficult objective or operation. For a simpler scenario, these amounts could be reduced by 25 to 40 percent.

When live fire exercises are included as a part of a commander's training plan, a unit's confidence, morale, and willingness to close with and destroy the enemy is greatly improved. The techniques I've described are not new, but they offer a way for leaders to truly test their units before the ultimate assessment of combat must be made.



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# Mounted Land Navigation

LIEUTENANT RICHARD THOMAS

A platoon leader in Europe encounters tremendous obstacles and limitations with respect to the availability and adequacy of military training areas. His resources expand considerably, though, when he looks around and examines the training potential of his surroundings. (Sometimes the same applies as well to platoon leaders serving in other areas of the world.)

As the scout platoon leader of my battalion in northern Germany, I found that training in certain tasks and skills had been neglected for lack of maneuver areas. I needed a field problem that would train and test the platoon's soldiers in all the tasks in which they were deficient.

I found that although northern Germany does not have many military maneuver areas, as the least populated part of West Germany it does have many roads and trails that interlace its small villages and its wooded and farming areas. I felt that these features would be ideal for training in mounted land navigation and therefore determined that this would be the main focus of my field problem.

As it turned out, the exercise became more than just a way of training the troops (and myself). It evolved into a means of assessing the performance of my squad and section leaders as well, for they too would find themselves under the pressure of completing numerous tasks in a field environment that was not familiar to them.

The problem I developed did not require much in the way of equipment—four jeeps, 15 coffee cans (readily available from the dining facility), some 5" by 8" blank index cards, some acetate to weatherproof the cards, and a good map of the maneuver area.

I first made a map reconnaissance to find 15 objectives or points that would be useful in training (such as bridges and rivers). I then scouted the area personally and developed a number of tasks that an individual soldier could accomplish at each objective. These tasks were diversified so as to provide training in several different military skills.

The tasks were then printed on the index cards and the cards covered with acetate so that they could be placed in coffee cans at each of the 15 points the day before the scheduled field problem. (They could also be used again, in other field problems or by other platoon leaders.)

## TRAINING COURSE

I then set up a training course with the 15 points, which were often up to 20 kilometers apart, so that each of the four jeeps, each carrying four soldiers, could reach them and the soldiers could accomplish all the required tasks at a rate of at least five points a day. This would enable the entire platoon to cycle through all 15 points of the course in the allotted three days of the problem. At each objective the final task on the card directed each jeep to the next point.

To control and monitor the individual jeeps, I planned to man a command jeep to which the soldiers would have to call in all tasks upon their completion. I would therefore be able to monitor the entire course and grade all the tasks immediately and give the soldiers prompt feedback on their progress in mastering the required skills.

Squad leaders or section leaders (or both) rode in the jeeps to be on-the-spot trainers and to evaluate the weaknesses

of their own squads or sections. From that, they could then determine the areas in which further training would be needed in the future.

The tasks varied at the 15 points. Initially, the troops were given an encoded eight-digit grid from the CEOI, which, when decoded, would direct them to their first point. When they found that point on the map, they proceeded to the objective and, once there, called in the location to the command vehicle. In reporting in, they used the CEOI with specific set and period to decode or encode the eight-digit grid, depending on the task instructions on the card they found at the point.

One index card, for example, gave a soldier these instructions and tasks:

*You see to your south at 1,000 meters, six enemy vehicles on line:*

- *Identify the vehicles.* (A vehicle identification card would be attached to the back of the task card.)

- *Report.* (Spot report using SOPs.)

- *Call for fire and/or call for attack helicopter.*

- *Identify type of unit that is following.*

*Your next location will be Set 32 Period 4 MC BDMUAWBA.*

Other tasks included classifying bridges or rivers. At one objective, two simulated mines had been buried, and the troops had to use a mine sweeper to remove them.

These are just a few examples of the tasks given the soldiers. By the time he completed the entire 15-point course, each soldier had received training in the following military skills:

- Mounted land navigation (day and night).
- Radio procedures.
- Use of the CEOI.
- Call for fire.



- Vehicle and aircraft identification.
- OPFOR organization.
- Use of platoon SOPs (various reporting/requesting methods: NBC 1, spot, MEDEVAC, maintenance, and the like).
- Squad level training such as the use of mine sweepers, decontamination procedures, and similar activities.
- Jeep driving.

This training exercise was extremely successful. First of all, the soldiers were eager to be off post, training in a new and unfamiliar area. And the uniqueness of the field maneuver served to motivate them to participate willingly in the tasks at each objective.

As the field problem progressed, tasks were added or made more complex. A soldier calling in would be asked, for example, to call for MEDEVAC because one of his men had been hit by sniper fire. This required that he authenticate using the CEOI. The pressure applied in such situations served to make the tasks and the mission more realistic for the soldiers. At the same time, their con-

tact with actual structures—bridges and rivers—enabled the soldiers to conceptualize better and to better understand and retain what they had learned.

During the exercise, the section and squad leaders were surprised to find that the soldiers who had seemed adept and well-trained from their classroom instruction had actually proved to be less than prepared to deal effectively with actual field situations.

As each day of training passed, though, a marked improvement was observed in the way the tasks were being accomplished, and the soldiers seemed to realize that this was the type of terrain that they might actually have to navigate over and defend in the event war came to the area.

Often during the exercise, the squad and section leaders had also found themselves lacking in expertise, and in several cases had to refer to field manuals for instruction and verification.

The kind of training described here is not unique to northern Germany or to

a scout platoon. By applying imagination and initiative, any platoon leader can adapt it to meet his own needs and missions. More to the point, any platoon leader can develop and implement other training that will stimulate and tax not only his troops but himself as well. All he has to do is look around him and use what is available. All platoon leaders must be inventive and creative and must use their existing resources to the fullest so that today's soldier can be tactically prepared for the mission at hand.



**Lieutenant Richard Thomas** is a company executive officer in the 4th Battalion, 41st Infantry Regiment, 2d Armored Division (Forward), where he previously served as the scout platoon leader. A 1983 ROTC graduate of Colorado State University, he has completed the Airborne and Ranger courses and earned the Expert Infantryman Badge.

# Hand and Arm Signals in the ROK Army

MASTER SERGEANT RAYMOND E. BRINKMAN

Throughout the history of warfare, success on the battlefield has been directly related to the timeliness and accuracy of orders and instructions. In the heat of battle, a small unit leader's ability to control weapon fire and direct the movement of soldiers to key positions at the critical time could determine the success or failure of a mission.

With today's electrical communications systems, all leaders have the ability to issue timely instructions and report battlefield situations as they occur. As important as these systems are on today's battlefield, however, there is evidence

that the U.S. infantryman has come to rely too heavily upon them. The fact is that there are situations and circumstances in which they fall short of the ideal. A case can be made therefore for augmenting, supplementing, and in some instances, replacing radio and telephone communications with hand and arm signals—particularly in infantry squad and platoon operations.

Visual signaling offers many advantages. It is direct and timely, and it reduces the possibility of misunderstanding. Unlike voice commands, visual signaling is not affected by battlefield

sounds, nor does it violate noise discipline when a unit is near enemy positions. During periods of limited visibility and obscurity, it can be supplemented by voice commands.

Recently, I have had an opportunity to observe units of the Republic of Korea (ROK) Army during their tactical training. The ROK Army places a great deal of emphasis on hand and arm signals and conducts intensive training on their use. A look at this training may help to refocus our own attention in that direction.

A comparison of the U.S. and ROK Army manuals that address hand and arm

signals reveals more similarities than differences. In comparing relative proficiency in visual signaling, however, the ROK Army units far exceed the "acceptable" levels found in U.S. units. This disparity can be attributed partly to the differences in emphasis. U.S. Army infantry squads and platoons rely most heavily upon electrical voice communications, while the ROK Army infantry places its primary emphasis upon visual signals. The seriousness with which the ROK Army approaches visual signaling is illustrated by the fact that its small infantry units are required to operate with a reduced allotment of radios.

The real key to the South Koreans' proficiency in visual signaling is the development of individual skills and teamwork through repetition.

In gathering information for this article, I observed two battalions of a ROK Army division in training. One of these battalions is responsible for the division's squad leaders training course. During this eight-week course, the soldiers receive a one-hour block of instruction on the use of hand and arm signals. These soldiers then get practical experience and master visual signaling skills after normal duty hours. As a prerequisite to graduation, the students must demonstrate their proficiency in the use of 39 hand and arm signals, and also their ability to teach these signals to other soldiers and lead them in executing the signals.

During my visit to this unit, a platoon in its eighth week of training demonstrated its proficiency. Each soldier wore a numbered vest designating his respective duty position and the corresponding position in the various formations. The student platoon leader briefed the platoon and explained and demonstrated the signals to be used; then the platoon members repeated the signals and executed the movements. The platoon leader initiated all the commands, while the platoon sergeant relayed them to the squad leaders.

Thirty different signals were used to direct the unit into virtually every established infantry platoon tactical formation. In addition, signals were used to command the platoon in a series of dismounted drill movements including platoon formations at normal, close, and double interval; open and closed ranks; facing



**Student platoon leader directs platoon into a tactical formation.**

movements; and marching. The unit's precision and responsiveness were impressive throughout the 20-minute demonstration, and the soldiers relied totally upon visual nonvocal signaling.

I also watched an infantry platoon negotiate a platoon attack course. While in the assembly area, the platoon leader and platoon sergeant rehearsed the platoon in the signals to be used in the exercise. During the rehearsal, the entire unit watched a demonstration of the signals and then executed them. On the course, visual commands for movement and fire control were supplemented with voice commands, but primarily to initiate actions previously signaled visually.

At no time was there any evidence of hesitation or confusion. Each soldier made a conscious effort to choose a concealed position that would afford him a direct view of his leader. All the soldiers exhibited individual initiative in adjusting their positions to maintain visual contact with the leader and to provide a clear view of their assigned sector. It was evident that these soldiers had been trained to alternate their attention between the leader, the adjacent friendly positions, and the enemy. As a result, maneuver and fire control were coordinated and synchronized.

The key to effectiveness and proficiency in hand and arm signaling is the mastery of individual skills, coupled with

teamwork. The ROK Army soldiers I observed had clearly achieved these goals.

If our Army's senior leaders increased the emphasis on visual signaling, and if junior leaders mastered the individual and collective skills, our small units could be substantially more combat effective. (The recent change in EIB qualification requirements is a small but positive step toward focusing attention on the use of hand and arm signals.)

In order to achieve the level of expertise demonstrated by the ROK soldiers, our units would have to conduct repetitious drills just as the South Koreans do. But repetition need not be boring. Imaginative, innovative leaders could vary training sites and the type and sequence of commands used. They could also instill a competitive team spirit to offset the potential for boredom.

In addition, our leaders would have to make a conscious effort to modify the current reliance upon vocal and electrical communications.

All kinds of communication—vocal, electrical, and visual—have their roles in small unit operations; each should be employed to capitalize upon its particular advantage in a given situation.

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**Master Sergeant Raymond E. Brinkman** is assigned to the Joint U.S. Military Assistance Group in Korea. He previously served as a First Sergeant in Germany and as a drill sergeant at Fort Jackson.

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# ENLISTED CAREER NOTES



## INFANTRY ANCOC

Noncommissioned officers who have been selected to attend the Maneuver Combat Arms Infantry NCO Advanced Course (ANCOC) will be scheduled to attend one of the Fiscal Year 1986 classes. The schedule for the rest of the FY 86 is as follows:

NUMBER	START	END
2-86	5 Jan 86	18 Mar 86
3-86	23 Mar 86	3 Jun 86
4-86	8 Jun 86	19 Aug 86
5-86	24 Aug 86	4 Nov 86

This 10-week course, held at the U.S. Army Infantry School at Fort Benning, Georgia, is for members of the Active Army or the Reserve Components in the rank of SSG with not more than 17 years of service. Applicants must be qualified in MOS 11B, 11C, 11H, or 11M and must have ten months or more of active duty service remaining upon completion of the course. They must also have Confidential (Interim) security clearances.

All students receive training in common subjects such as leadership, training management, maintenance, and communications. Then the 11Bs study tactical doctrine, military operations in urban terrain, Dragon employment, patrolling, and offensive, defensive and retrograde operations; the 11Cs take mechanical and tactical training on mortars, forward observer and fire direction center procedures, and field training exercises; and the 11Hs operational training and tactical employment of TOWs, offensive and defensive operations, and military operations in urban terrain.

Applicants are selected by DA and MILPOs are notified of the students' attendance dates 60 to 90 days before the class is scheduled to begin. The individual students are also notified by letter through their units.

Any NCO who is on the selection list but has already completed either the resi-

dent or the nonresident ANCOC should do two things to correct the situation: First, mail a copy of his diploma or course completion certificate to DA, MILPERCEN, DAPC-EPK-I (ANCOC), 2461 Eisenhower Avenue, Alexandria, VA 22331; then update his records to reflect ANCOC completion.

At the time they report, students *must* have the following in their possession:

- 20 copies of TDY or PCS orders and amendments as appropriate.
- Copy of hazardous duty orders if currently on jump status.
- Copy of legible DA Form 2A and 2-1.
- Copy of DA Form 31 with provision for leave after course completion, if applicable.
- Copies of limited medical profiles.
- Copy of over-40 physical examinations completed and posted to medical records. (Anyone who reports to Fort Benning without it will be sent back to his installation.)
- Copy of Pinch Test/Skin Fold Test if student has been granted an adjusted weight in accordance with AR 600-9.
- Finance and health/dental records for students attending TDY enroute. (Students on TDY and return status need not bring finance records.)
- Two pairs prescription eyeglasses, if needed.
- Money enough to cover \$6.00 per day for separate rations and rooms for 10-week period.

Further information is available in DA Pamphlet 351-4 (16 July 85) or from SFC Calanni or Mrs. Stinson at AUTOVON 221-9425/9166; commercial (202) 325-9425/9166.

## ROTC SCHOLARSHIPS

The Army Reserve Officer Training Corps (ROTC) gives active duty Army enlisted soldiers an opportunity to com-

pete for college scholarships.

Two hundred of these scholarships were available this past year, but only 144 were awarded. One reason more soldiers were not selected is that they submitted incomplete applications.

To be eligible for a scholarship under this program, a soldier must meet the following criteria:

- Be a U.S. citizen.
  - Be at least 17 years of age before the award becomes effective.
  - Be under 25 years of age on 30 June of the year in which he is to be commissioned. (Soldiers can be granted up to a four-year extension to this limit.)
  - Have completed one year of active duty before his discharge for enrollment at a selected college.
  - Have received a score of 115 or higher on the GT aptitude area of the Army Classification Battery.
  - Have completed one year of study in an approved baccalaureate degree program with three remaining for a three-year scholarship, or have completed two years of college with two remaining for a two-year scholarship.
  - Be accepted at an institution offering Army ROTC. (It is the individual's responsibility to gain acceptance to the college or university.)
  - Have at least a 2.0 grade point average on a 4.0 grading scale for college work completed.
  - Score at least 60 points on each event of the APRT.
  - Receive a favorable recommendation from his commander and a favorable endorsement by a field grade officer.
  - Have a favorable National Agency Check and/or Entrance National Agency Check.
  - Be medically qualified for the ROTC scholarship program.
  - Be of good moral character, have leadership potential, and be willing to support and defend the United States.
- These Army ROTC scholarships pay

tuition, fees, and a flat rate for textbooks, supplies, and equipment, as well as other educational expenses. Additionally, scholarship winners are paid a monthly allowance of \$100 for up to 10 months a year and are also paid for attending a six-week summer advanced camp. Enlisted scholarship winners may also receive the G.I. Bill or VEAP benefits they earned while on active duty.

After commissioning, scholarship graduates will have an eight-year commitment to the Army. They can fulfill this obligation by serving from two to four years on active duty followed by service in the National Guard or Army Reserve. Or they can serve eight years in the National Guard or Army Reserve, following an active duty period of three to six months to attend an Officer Basic Course.

The deadline for requesting applications for these active duty scholarships is 15 March 1986. Completed applications should be sent to Army ROTC Scholarships (AD), HQ TRADOC, Fort Monroe, VA 23651 in time to arrive by 1 April 1986.

Additional information is available at local Education Centers.

## DATE OF RANK AND DATE OF PROMOTION

Some mid-grade enlisted soldiers apparently misunderstand the difference between date of rank and effective date of promotion. As a result, the Army Board for Correction of Military Records receives many requests to change effective date to the dates of rank.

A soldier's date of rank is normally established in the month before his effective date of promotion, usually the first day of the month.

This earlier date of rank is to the

soldier's advantage. It often makes him eligible for promotion to the next rank earlier than if these two dates were the same.

Any soldier who has been promoted later than he thinks he should have been may send a written request on DD Form 149 to have his effective date changed to the one that would have been established if he had been promoted on time.

Soldiers can prevent late promotions by keeping track of their own promotion points. If a soldier suspects that he has met the promotion cut-off score but has not received orders by the first of the appropriate month, he should check with his personnel office.

## FIRST SERGEANT COURSE

Infantry Branch at MILPERCEN gets a limited number of allocations to send NCOs to the First Sergeant Course at Fort Bliss, Texas. Here is the course schedule for the rest of Fiscal Year 1986:

NUMBER	START	END
2-86	6 Jan 86	27 Feb 86
3-86	3 Mar 86	24 Apr 86
4-86	28 Apr 86	19 Jun 86
5-86	7 Jul 86	28 Aug 86
6-86	2 Sep 86	23 Oct 86

This eight-week course is designed to provide training on selected tasks that are considered critical to the position of First Sergeant. Major subject areas include military studies, leadership and human relations, resource management, unit administration, and physical training and appearance. Emphasis throughout the course is on the inherent and assigned duties, authority, and responsibility of the First Sergeant today.

Active Army or Reserve Component NCOs may attend if they meet the follow-

ing criteria: They must be in the ranks of SFC/PSG or MSG/1SG; must have been selected for the position of First Sergeant or have less than one year of total experience as a unit First Sergeant; and must be recommended by their commanders and command sergeant majors. The course incurs a nine-month service obligation.

In addition, these NCOs must meet the height and weight standards of AR 600-9. Those who exceed the screening table maximum must bring with them to the course a certificate of maximum allowable weight. Those who are over 40 years of age must bring with them medical clearance to participate in physical training.

NCOs who are on orders to go to or return from Korea are eligible to attend on a TDY basis enroute. These should contact SFC Paulk or SFC Calanni at AUTOVON 221-9166/9425.

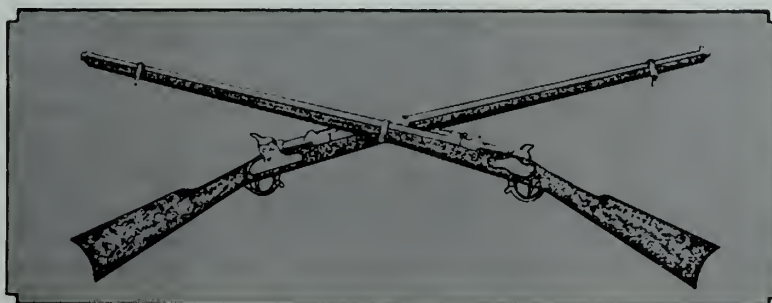
## OCS ENCOURAGED

All soldiers are encouraged to apply for the Officer Candidate School (OCS) program.

The following is the proposed OCS schedule for the rest of Fiscal Year 1986:

APPLICATIONS		
CLASS	REPORT/CLOSE	DUE AT DA NLT
3-86	4 May-12 Aug 86	1 Feb 86
4-86	13 Jul-21 Oct 86	1 Feb 86
5-86	7 Sep-18 Dec 86	1 Jun 86

Soldiers who are assigned to COHORT units may apply for OCS, but if they are selected they will not attend until they have been released from their COHORT units. Their unit commanders must advise DA by endorsement that they are attached to a COHORT unit and must state their release dates.





# OFFICERS CAREER NOTES



## BRANCH CHIEF'S NOTES

As I begin my tour in MILPERCEN, I look forward to serving Infantry officers, the Army's finest.

The Infantry is in the process of evolutionary changes in terms of both force structure and equipment. The dynamics of the new light infantry divisions, the Ranger regiment, the Bradley fighting vehicle, improved weaponry, CAS<sup>3</sup>, COHORT, regimental affiliation, and others affect us all.

These are challenges to the Infantry officer and to us in Infantry Branch, since the Infantry of the future will require well-trained, broad-based officers capable of serving in various kinds of units on battlefields of varying intensity. In spite of these challenges to personnel management, we in Infantry Branch are committed to treating Infantry officers as proven professionals, not as spare parts.

To meet both the needs of the Army and the professional development of each officer, we need your help and understanding.

We need your help in making sure you have a current preference statement at Infantry Branch with clear, realistic goals and also in periodically updating your ORB and official photo. Your assignment officer can then better serve the Army's requirements and your personal and professional aspirations.

We need your understanding when it comes time to discuss future assignments; we can't assign you where the Army does not have requirements, nor can Infantry officers serve their entire careers with troops. We must, however, assign Infantry officers to meet the needs of the Army while maintaining an equitable assignment system to keep all officers competitive for promotion. No matter what your assignment may be, the best advice I can give you is to do the best you can—you are serving in and representing the Army.

Call us at Infantry Branch whenever

you have a problem. Our AUTOVON numbers appear with our photos elsewhere in these notes. (For commercial calls, use Area Code 202 with the prefix 325.)

We look forward to the challenges that face us in the future and pledge that Infantry Branch will continue to provide the best possible personnel service to you, the best Infantry officer corps in the world.

**LTC THEODORE REID**

## FUNCTIONAL AREA MANAGEMENT

As a result of revisions in the Officer Personnel Management System (OPMS), most additional specialties are now called functional areas. These functional areas are managed by a separate functional area branch in each officer career management division at MILPERCEN.

The Functional Area Management Branch in the Combat Arms Division is responsible for functional areas 18 (Special Operations), 46 (Public Affairs), 48 (Foreign Area Officer), 50 (Force Development), 54 (Operations, Plans, and Training), and 99 (Combat Developments).

The branch in the Combat Support Arms Division is responsible for functional areas 49 (Operations Research/Systems Analysis), 52 (Nuclear Weapons), and 53 (Systems Automation).

The branch in the Combat Service Support Division is responsible for functional areas 41 (Personnel Management), 45 (Comptroller), 47 (Permanent Faculty), 51 (Research and Development), and 97 (Procurement). Additionally, skills 6T (Materiel Acquisition Management) and 4L (Club Management) will also be controlled by the new branch.

The mission of the branches is to

manage, develop, and assign officers designated in their respective functional areas. This realignment is designed to improve the Army's ability to meet its requirements in the functional areas and to provide a home for those who single-track.

As careers develop, some officers will single-track within their branch, others will double-track in branch and functional area assignments, and some will single-track in a functional area.

There will be no immediate change to the current management of most officers. Branch assignment officers will assign, develop, and manage careers in much the same way they do now, but the officers who are presently single-tracked in a functional area will be controlled by the new functional area management branches.

## RELEASE FROM ACTIVE DUTY

Some U.S. Army Reserve (USAR) officers have been incorrectly advised to resign instead of asking for release from active duty.

USAR officers who have not completed their original six-year military service obligations are not eligible to resign. They must request release from active duty and serve the rest of the time in the USAR. (For officers who began active duty after 1 June 1984, the military service obligation is eight years.)

Officers who have completed their obligations may either resign or request release from active duty. Those who want to retain their commissions, however, and serve in the USAR must request release instead. Otherwise they relinquish their commissions and sever all ties with the Army.

Regular Army officers who want to be released from active duty must resign their RA commissions. If they have not completed their six- or eight-year obli-

## INFANTRY BRANCH TEAM



**MAJ(P) Lars Larson**  
Branch XO/LTC, Functional Area  
221-0209/7823



**LTC Theodore Reid**  
Infantry Branch Chief  
221-0317/7823



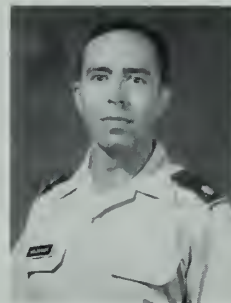
**MAJ Chris Brown**  
LTC, SC 11, CMD, ROTC  
221-0318/7823



**MAJ Flynn Andrew**  
MAJ, SC 11  
221-0318/7823



**CPT Jack Gardner**  
MAJ, Functional Area  
221-0318/7823



**MAJ Mike Van Buskirk**  
LTC, Functional Area 54  
221-0317/0318



**CPT Steve Sittnick**  
MAJ/CPT, Functional Area 54  
221-0317/0318



**CPT Dan French**  
CPT, Branch Away from Troops  
221-0317/7823



**CPT Frank Wiercinski**  
CPT, Post-IOAC, CMD  
221-0207/0317



**CPT Rob Johnson**  
CPT, Functional Area  
221-0207/0208



**CPT Ken Curley**  
LTs, SC 11  
221-0207/0209



**Miss Pam Mays**  
LTs Accessions  
221-0207/0208



**CPT Mike Robinson**  
Ft. Benning Liaison  
835-3611/3714



gations, they must accept appointment in the USAR.

RA officers who have completed their obligations and want to retain USAR commissions must request appointments in the USAR, to be effective when they resign.

Local USAR representatives can provide details on participation in the U.S. Army Reserve.

## CORRECTION ON CAS<sup>3</sup>

The note on CAS<sup>3</sup> scheduling that appeared in the September-October 1985 issue of INFANTRY (page 47) needs to be corrected:

First, all officers in Year Group 1979 or later (*not* 1977) must attend CAS<sup>3</sup> between their sixth and ninth years of active Federal commissioned service.

Second, those who attend on a TDY and return basis must have chain of command approval, followed by notification to their major commands (*not* MILPERCEN) for scheduling of class dates.

The schedule shown with that note has also been revised as follows:

CLASS	START	CLOSE
1-86	8 Oct 85	12 Dec 85
2-86	8 Jan 86	12 Mar 86
3-86	23 Jan 86	26 Mar 86
4-86	17 Mar 86	16 May 86
5-86	31 Mar 86	30 May 86
6-86	21 May 86	23 Jul 86
7-86	5 Jun 86	6 Aug 86
8-86	28 Jul 86	26 Sep 86
9-86	11 Aug 86	10 Oct 86

## CVI/VI SELECTION

A Conditional Voluntary Indefinite (CVI) selection board convenes each quarter at MILPERCEN to review the files of USAR lieutenants with two and one-half years of service. This board determines which lieutenants will remain on active duty and which will be reassigned to the Reserve Components when their active duty obligations have been served.

A second board determines which officers must be transferred to under-

strength branches. Branch transfers will take place when an officer is promoted to captain.

Under the new system, officers will apply for Voluntary Indefinite (VI) status after they have completed seven years of service. A board will again review their files to determine whether they should be retained, transferred to understrength branches, or released from active duty.

Officers whose VI applications are approved will be retained on active duty until they are integrated into the Regular Army on promotion to major. If their applications for VI are disapproved, they will be released from active duty when they have completed their service obligations.

For more information on CVI and VI boards, contact DAPC-OPP-M, AUTOVON 221-7680.

## IOAC AND IOBC SCHEDULES

In the July-August 1985 issue of INFANTRY, page 48, we published the then-current proposed schedule of IOAC and IOBC classes for Fiscal Year 1986. Since then, this proposed schedule has been revised. Anyone who would like a copy of the latest schedule may write to INFANTRY, P.O. Box 2005, Fort Benning, GA 31905-0605; or call AUTOVON 835-2350, commercial (404) 545-2350.

## MATERIEL ACQUISITION MANAGERS

The Army's Materiel Acquisition Management (MAM) Program identifies captains in their sixth through eighth years of service who will be trained and assigned as materiel acquisition managers.

Their work may include project management, procurement and production of weapons and equipment systems, or research and development.

Officers may apply directly to their career branch, or they may be nominated for the MAM Program. A MILPERCEN board meets three or four times a year to select the best-qualified applicants.

To qualify, an officer must:

- Have at least five and one-half years of service.
- Be qualified in an OPMD-managed branch (Combat Arms, Combat Support, or Combat Service Support).
- Hold a degree (bachelor's or higher) from a civilian institution, preferably in science, engineering, or business administration.
- Hold one of the 14 acquisition specialties listed in Chapter 101, DA Pamphlet 600-3 (Commissioned Officer Professional Development and Utilization). Officers who have not yet been assigned an acquisition specialty must request early designation of an additional specialty (ADSPEC).
- Demonstrate potential for advancement in the field of materiel acquisition management.

Officers who are selected for the MAM Program will receive the additional skill identifier (ASI) of 6T and may eventually be certified as Army materiel acquisition managers.

For more information, see DA Pamphlet 600-3, Chapter 101, or contact DAPC-OPA-C, AUTOVON 221-0417 or the professional development officer in your career branch.

## RA OATH REQUIRED

Reserve officers on active duty who are selected for promotion to major are eligible for integration into the Regular Army, but they must execute the RA oath as part of the process.

After RA appointments are approved (usually several months after a promotion list is released), MILPERCEN sends appointment orders and instructions for administering the oath to all MILPOs.

Officers may execute the oath no earlier than the effective date of their promotion to major, or may decline in writing. The MILPO will send the oath to MILPERCEN, where the Officer Master File will be updated to show that the officer has RA status.

RA integration is not automatic; it requires action by both the MILPO and the officer. Officers should keep a copy of the RA oath in their personal files.

For more information, contact DAPC-OPP-P, AUTOVON 221-0596.

# BOOK REVIEWS



The official U.S. Army history of the Vietnam War is now being published by the Army's Center of Military History. The series of some 20 books, to be published over a period of 10 years, will include the Army's involvement from its early advisory years to 1973, when the last U.S. combat troops left Vietnam.

Illustrations, maps, charts, and photographs will be featured throughout the series. Each volume will include a comprehensive index covering personal names, military titles, geographic locations, major Army functions, and commands down to division level. Special books will focus on the massive logistical support of the war, its pioneering technologies, Vietnamization, intelligence, and communications.

All of these books will be sold by the U.S. Government Printing Office. If you would like timely announcements of each volume's publication (as well as notices of new military history books from all of the armed services), send your name and address to the Superintendent of Documents, Mail Stop: MK, Washington, D.C. 20401, and ask to be put on Priority Announcement List N-534.

Recently, Jane's Publishing sent us three of its latest updated reference publications, each in a series recognized by most specialists as being the best of its kind. The three are:

- **JANE'S INFANTRY WEAPONS**, 1985-86, 11th Edition. Edited by Ian V. Hogg, 960 Pages. \$125.00. As usual, Ian Hogg's foreword is a pleasure to read, the glossary of terms is most useful, the addenda add much useful information, and the table titled "National Inventories" makes a nice ready reference for determining which country is using what equipment. The book has six major subdivisions: point target weapons (pistols and revolvers, submachineguns, rifles, shotguns, machineguns, cannon, ammunition); area weapons (grenades and grenade launchers, riot control muni-

tions, pyrotechnics, flamethrowers, mortars, mortar fire control, support rocket launchers); antiaircraft and antitank weapons; electronics and optics; training aids and simulators; and body armor. The alphabetical index is also most useful and helps guide a reader through the book's hundreds of fact-filled pages.

- **JANE'S MILITARY VEHICLES AND GROUND SUPPORT EQUIPMENT**, 1985, Sixth Edition. Edited by Christopher F. Foss and Terry J. Gander, 919 Pages. \$125.00. There are a number of notable differences between this and the previous edition of the same name: 140 new entries, more than 600 new illustrations, and 40 more pages. The editors attribute this to the fact that "over the last year, the overall market has been enlarged not by an increase in the number of new items of equipment but by the number of nations involved in the production and marketing of such equipment." Their foreword is directed to this point as they discuss what some of the more important nations are offering. The book, in addition to a glossary, an addenda, and an index, has ten major subdivisions: armored engineer vehicles, recovery vehicles and equipment, bridging systems, mine warfare equipment, transport equipment, construction equipment, demolition equipment, field fortification and related emplacement equipment, NBC equipment, and miscellaneous equipment (such as assault boats and raiding craft, barbed wire systems, and camouflage equipment and decoys).

- **JANE'S MILITARY COMMUNICATIONS**, 1985, Sixth Edition. Edited by R. J. Raggett, 914 Pages. \$125.00. With the increasing attention highly placed military leaders are paying to the means of command, control, communications, and intelligence in the NATO countries, this particular volume offers the professional infantryman much useful information on what has become a rather complicated and technical field

but one in which he must prepare himself if he is to succeed on a future battlefield. The editor points out that the time has come for both the military man and the industrialist to refrain from being "seduced by technology" and "to produce co-ordinated systems that will work effectively one with another, and, importantly, co-exist with the very considerable existing inventory." He feels that "there has been a lot of waste of financial and technical resources in pursuit of technological perfection" and that "in too many cases this has either resulted in equipment or systems being abandoned because they would be too costly, or in programmes suffering long and costly delays as the engineers fall at the hurdles in the journey from the development laboratory to the working product." To him, "the pursuit of technological perfection is like looking for the end of a rainbow — you never find it." This book, like the others, has an index and addenda, but it also has four appendixes. It has two major subdivisions: equipment (radio communications, line communications, and the like) and systems.

All three of these books are outstanding reference works and should be in every library frequented by military personnel.

Many other excellent publications continue to come our way from many different publishing houses. Here are a number of the most recent ones we have received:

- **MONTGOMERY IN EUROPE**, 1943-1945. By Richard Lamb (Franklin Watts, 1984, 472 Pages. \$18.95). The author is a British journalist and broadcaster. He served in various staff positions with the British Eighth Army in Italy. Like most British writers who have tackled the Montgomery story, Lamb, too, defends his man against all comers and places him head and shoulders above everyone else who commanded at the highest echelons during the war. In rais-



ing Montgomery to such an exalted position, Lamb denigrates all other commanders, and this, unfortunately, destroys much of his and his book's credibility.

• **THE MIDDLE EAST MILITARY BALANCE**, 1984. Edited by Mark Heller, Dov Tamari, and Zeev Eytan (Westview Press, 1985. 316 Pages. \$35.00). This publication, produced by the Jaffee Center for Strategic Studies at Tel Aviv University, contains the findings and assessments of the Center's research staff. It is the second in a series, the first being a 1983 version. It has four parts: a review and assessment of the possible consequences of the major strategic developments in the area from the fall of 1982 to the spring of 1984; a data base of regional military forces as of July 1984; an analysis of the most important subregional balances; and an updated group of reference materials—summary tables, glossary of weapons, maps, and abbreviations. This is, overall, an excellent reference book.

• **OUTPOSTS OF THE WAR FOR EMPIRE**. By Charles Morse Stotz (University of Pittsburgh Press, 1985. 203 Pages. \$34.95). This is a big, beautiful, and authoritative volume, a project of the Historical Society of Western Pennsylvania. The author, a noted architectural historian, not only describes in considerable detail 24 forts built by the French, the English, and the colonists in Maryland, Virginia, and Pennsylvania between 1749 and 1764, but also tells of the events during those years that decided the ownership of the American continent. In his perspective drawings, Stotz allows a reader to see the most important forts as they were originally constructed, while in his narrative he tells how the soldiers who occupied those forts lived on the American frontier in the mid-18th century. This is an absolutely fascinating work, and the publisher must be congratulated for the book's layout and design.

• **ROOTS OF STRATEGY**. Edited by T. R. Phillips (Stackpole Books, 1985. 448 Pages. \$13.45, Softbound). This book is a reprint of an earlier work that was first printed in 1940. It is considered a military classic, but has not been available, except through used book

sources, for more than 20 years. This is the first time it has been reprinted in a softcover edition, and it contains, as did the original book, five of the most influential military writings of all times—by Sun Tzu, Vegetius, Maurice de Saxe, Frederick the Great, and Napoleon. It should be in every infantryman's personal library and should be read and studied before being placed on the shelf.

• **ON INFANTRY**. By John A. English (Praeger, 1984. 265 Pages). In 1981 the author, a serving Canadian infantry officer, published his well received book titled *A Perspective on Infantry*. This new book is a softbound version of the 1981 publication, with revisions seemingly restricted to updating the bibliography. This, too, is a book that professional infantrymen should own, read, and study if they do not already own a copy of the 1981 edition.

• **THE SECOND WORLD WAR: A PHOTOGRAPHIC HISTORY** (Larousse, 1985. 335 Pages. \$29.95). Every piece of graphic art in this book is in full color, which makes it an attractive and unique photographic history. And each piece of art is part of the book's main story because there is no narrative as such. The story of the war is told through the clear, concise captions. The main entries, after a series of beautifully done maps, are presented alphabetically and range from the Afrika Korps to Zhukov. First published in France in 1984, the book was translated into English by Angela M. Wootton and John Bailie.

• **WAR IN PEACE: CONVENTIONAL AND GUERRILLA WARFARE SINCE 1945**. Updated Edition. Consulting Editor, Sir Robert Thompson (Harmony Books, 1985. 336 Pages \$25.00). This recently published version of the original 1981 publication contains three new chapters, an update of two others, and 24 more pages. Nine military historians join Sir Robert Thompson, a world authority on guerrilla warfare, in presenting accounts of 28 wars, revolutions, and acts of international terrorism that have occurred since the end of World War II. The accounts vary in length, depending on the activity under discussion, but each is supplemented with photographs, full-color maps, and charts. Infantrymen should find this a most in-

teresting and informative book.

• **INSIDE THE VICIOUS HEART: AMERICANS AND THE LIBERATION OF NAZI CONCENTRATION CAMPS**. By Robert H. Abzug (Oxford University Press, 1985. 171 Pages. \$16.95). Allied soldiers liberating Buchenwald, Dachau, Belsen, and other concentration camps in 1945 came face to face with the human ruins of the Nazi system of slave labor and genocide. This book captures the shock of that discovery by telling the story of the camp liberations as U.S. soldiers and other eyewitnesses actually experienced them.

• **HITLER'S ROCKET SITES**. By Philip Henshall (St. Martin's Press, 1985. 205 Pages. \$24.95). The author describes the development of the V1 and V2 rockets by the Germans and gives the results of his comprehensive investigation of the sites that were built to store, service, and launch the rockets. He finds strong evidence that the Germans intended to use nuclear or chemical warheads against Britain.

The Combat Studies Institute of the Army's Command and General Staff College at Fort Leavenworth has also sent us a number of its recent publications, all of which we recommend strongly to our professional infantry readers:

• **CHEMICAL WARFARE IN WORLD WAR I: THE AMERICAN EXPERIENCE, 1917-1918**. By Major Charles E. Heller (Leavenworth Papers No. 10, September 1984. USGPO S/N 008-020-01014-6. 116 Pages, \$4.50, Softbound).

• **TOWARDS COMBINED ARMS WARFARE: A SURVEY OF TACTICS, DOCTRINE, AND ORGANIZATION IN THE 20th CENTURY**. By Captain Jonathan M. House (Research Survey No. 2, 1984. 231 Pages, Softbound).

• **RAPID DEPLOYMENT LOGISTICS: LEBANON, 1958**. By Lieutenant Colonel Gary H. Wade (Research Survey No. 3, 1984. 115 Pages, Softbound).

• **THE SOVIET AIRBORNE EXPERIENCE**. By Lieutenant Colonel David M. Glantz (Research Survey No. 4, 1984. 211 Pages, Softbound).

We would also call your attention to an excellent reference work that has been around for a few years, but is still one

of the best of its kind. It is:

• **UNITED STATES ARMY UNIT HISTORIES: A REFERENCE AND BIBLIOGRAPHY.** Compiled by James T. Controvich (MA/AH Publishing, 1983. 591 Pages. \$51.00). This work would never win any awards for layout and design, but it doesn't have to—it is far more important for what it is rather than for what it is not. For example, it is not just a bibliography of unit histories. It has separate chapters on unit lineages, campaign participation credits, organic units, orders of battle, and the names of the commanders of division and larger units constituted in the U.S. Army during the 20th century. It also contains information about the National Guard organization, the Women's Army Corps, and camps and forts. The index is most helpful.

Finally, the Government Printing Office has announced the reprinting of three of the volumes in the Army's official World War II series. They are:

• **THE ARDENNES: BATTLE OF THE BULGE.** By Hugh M. Cole (OCMH, 1965. Reprinted 1983. S/N 008-029-00069-5. 720 Pages. \$21.00).

• **GUADALCANAL: THE FIRST OFFENSIVE.** By John Miller, Jr. (OCMH, 1950. Reprinted 1984. S/N 008-029-00067-9. 414 Pages. \$20.00).

• **THE LAST OFFENSIVE.** By Charles B. MacDonald (OCMH, 1974. Reprinted 1984. S/N 008-029-00087-3. 552 Pages. \$25.50).

Here are reviews of a number of other books we thought you might find interesting:

**PLATOON LEADER.** by James R. McDonough (Presidio Press, 1985. 212 Pages. \$15.95). Reviewed by John Lucas, Knoxville, Tennessee.

Jim McDonough has written a superb book about leadership in combat. Although he disclaims any purpose other than to tell the story of a U.S. Army platoon leader in combat, his book is more than just a war story. It is a book about the U.S. soldier, about the difficulties and frustrations he often faced in Vietnam, particularly when fighting in populated areas. It is about small unit tactics; it is about an infantry leader's efforts to conquer his own fears and to control the fears

of his men; it is about an officer's need to balance somewhat contradictory goals—the welfare of his men and the accomplishment of his tactical mission.

Lieutenant McDonough went to war about as well prepared as anyone could be. His four years at West Point had been followed in quick succession by airborne, Ranger, and jungle warfare schools, and then by six months with the 82d Airborne Division. Even so, as he would quickly come to learn, he was not yet "socialized to the ways of war." That would come only with experience.

He joined the 173d Airborne Brigade in 1970 when that unit had a "pacification" mission—the name was deceptively unwarlike. His understrength platoon was assigned the mission of protecting a "strategic hamlet," Troung Lam in Binh Dinh province. He had hardly assumed command when he was faced with a variety of challenges and choices that would have tested the mettle of even an experienced combat leader. But they made clear to him what most experienced infantry leaders know—that the most difficult task a combat leader has is not coordinating firepower or maneuvering a unit under fire, it is gaining the respect and confidence of his men and establishing a discipline and spirit that will lead to combat effectiveness. Some of McDonough's solutions were "by the book," but others, it is fair to say, will never be officially condoned by the Infantry School.

As McDonough makes clear, combat is filled with contradictions, and combat in Vietnam had more than its fair share. Life and death dilemmas were part of the everyday fare. Although the correct answers may come easily to the academicians and editorialists, they come with agonizing difficulty to a 24-year old platoon leader who may have to carry the bloodied and shattered remains of his decisions to a medical evacuation helicopter.

To McDonough, the combat leader's most difficult task may be that of retaining his and his men's humanity without compromising the success of their military mission. Their mission, of course, was to kill the enemy. Killing the enemy, in fact, was not just their mission—it was central to their existence.

But as others have learned, it is all too easy to come to enjoy it.

This book is the only one yet published by a professional officer about his experiences in Vietnam at the small unit level.

It therefore presents a much more balanced picture of the average American soldier than previous books whose authors appeared to be more interested in shocking, dramatizing, or fabricating to suit their own purposes. It is a book that every combat arms leader should read.

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**CONTEMPORARY ISSUES IN LEADERSHIP.** Edited by William E. Rosenbach and Robert L. Taylor (Westview Press, 1984. \$35.00). Reviewed by Colonel George G. Eddy, United States Army Retired.

In this book, the editors, both assigned to the Air Force Academy at one time, have collected 28 leadership articles and arranged them under five headings. Eleven of these articles, or 39 percent of this book, were reprinted previously in their other 1984 book, *Military Leadership: In Pursuit of Excellence*. The authors lost the race in that pursuit, and they have lost further ground here.

A reader gets off to a bad start immediately with the book's Foreword, in which David Campbell of the Center of Creative Leadership first declares that leadership cannot be defined adequately and subsequently offers this definition: "Any action that focuses resources toward a beneficial end." This is certainly not reassuring, when it is buttressed by the fact that some of the book's authors "even argue that leadership is irrelevant."

Although this book claims to be "a comprehensive review of the phenomenon of leadership," it is much less than that. In fact, it is one of those collections of articles that seem so much in vogue today, collections that add up to little and should be avoided.

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**IMAGE AND REALITY: THE MAKING OF THE GERMAN OFFICER, 1921-1933.** By David N. Spires (Greenwood Press, 1984. 260 Pages. \$29.95).



Reviewed by Daniel J. Hughes, Fort Leavenworth, Kansas.

In this important new study, David Spires examines the efforts of the *Reichswehr* to create and maintain an effective officer corps within the restrictions imposed by the Versailles Treaty. Although the *Reichswehr* never resolved the conflict inherent in its dual tasks of preparing for immediate national defense and of establishing an expandable cadre army, it did produce an efficient and highly professional officer corps.

Historians and others will find a wealth of basic information on officer selection, training, and promotion. As Spires concludes, the effectiveness of the system, which was a combination of the Army's imperial heritage and the lessons of World War I, is beyond dispute at the tactical and operational levels.

Several broad trends emerge clearly. The *Reichswehr* never sacrificed quality for quantity. It maintained the traditional Prussian/German maxim that having no officers was preferable to filling slots with poor ones. Officer training emphasized flexibility, personal development, and tactical knowledge. Candidates for schools had to take rigorous examinations, because piles of efficiency reports were insufficient evidence of knowledge and potential for higher command and staff positions. Combat readiness and considerations of the threat, rather than bureaucratic guidelines, dominated both training and personnel programs.

A few words of caution are in order. The limited size of the samples deprives the author's statistical information of credibility. Spires, however, recognizes this and uses the data cautiously.

A second problem is the dominance of the experiences of a few Bavarian officers. The author relies on them because their records survive in some volume. Fortunately, Spires exercises good judgment and places these experiences in a broader framework where possible. As a result, the notes and lists of sources are good bibliographic guides to the available literature.

Leaders responsible for officer selection, training, and promotion in our own Army ought to have a look at this book. It takes a rightful place alongside the more pointed works of Trevor

Dupuy and Martin van Creveld in suggesting areas where military history might be considered in the formulation of policy. Many junior officers as well would profit by reading this short book, which has only 130 pages of text. It partially answers many questions currently being raised by students in the infantry officers advanced course at Fort Benning.

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**THE GRENADA PAPERS.** Edited by Paul Seabury and Walter A. McDougall (Institute for Contemporary Studies, 1984. 346 Pages. \$8.59, Softbound). Reviewed by Colonel James B. Motley, United States Army Retired.

Here is a collection of documents, released through the U.S. Information Agency, that dramatically chronicle the internal affairs of the People's Revolutionary Government of Grenada (PRG) from its creation in 1979 to its termination in 1983. The collection provides detailed insights into the inmost character of the Marxist-Leninist communist system.

Prior to the U.S. military operations in Grenada, few Americans were aware of the intricate web of Soviet-bloc treaties and agreements in which the PRG had become entwined, or of the long-term strategies of the New Jewel Regime (NJR). As these documents show, by the time of the U.S. rescue mission the NJR had entered into agreements with the Soviet Union, Vietnam, Czechoslovakia, North Korea, Cuba, and East Germany for sophisticated military equipment and technical logistical assistance. Although many of the supplies had been delivered, many more were to come.

Moreover, the NJR had developed, based on Soviet aid, an ambitious program for its army that would have placed 15 to 25 percent of the entire Grenadian population under arms, thereby giving Grenada the largest army in proportion to population in the world.

The documents are organized in sections under eight headings. Each section includes a brief introductory survey and, with the exception of two sections, each individual document is accompanied by prefatory comments. A number of pho-

tographs are included in the section that discusses Soviet and Soviet-bloc activities.

These documents should dispel any lingering doubts or illusions about the extent to which the Soviet Union and its proxies were attempting to establish a strategic outpost in Grenada. They also serve as a useful reminder of the Soviet Union's expansionist aims and demonstrate vividly that even a tiny island like Grenada, given its geographical position, can constitute a threat to the security of the United States.

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**WAR IN SPACE.** By James Canan (Harper and Row, 1982. 186 Pages. \$13.95). Reviewed by Lieutenant Roy F. Houchin, United States Air Force.

James Canan is a Pentagon correspondent for *Business Week* magazine and uses his unique position to construct a narrative about this country's growth and development of high technology defense hardware for use in space. Canan details the purpose, function, and cost of U.S. defense technology—and the subsequent Soviet actions and reactions—from the Eisenhower administration through the first years of the Reagan administration. His unpretentious but dramatic prose defines the many differences in ideology, politics, and budget matters these administrations, Congress, the Pentagon, and NASA have ushered into existence.

For the reader interested in tomorrow's "high ground" of battle, Canan's book can give some valuable insights into the problems and costs. While much of tomorrow's weaponry and tactics are classified, Canan does present several interesting and fascinating avenues U.S. technology might take to meet the continuing Soviet threat. His book is well worth reading as we enter a new era of space exploration.

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**A BATTLEFIELD ATLAS OF THE CIVIL WAR.** By Craig L. Symonds. Cartography by William J. Clipson. Second Edition, 1st Printing (Nautical and Aviation Publishing Company, 1985. 128 Pages. \$15.95). Reviewed by

**Captain Michael A. Phipps, United States Army.**

The first edition of this book appeared in 1983. This second edition is quite similar, although its graphics are slightly different—and better—and the paper-stock is not the same. There are also a few more maps in it.

A truly detailed battlefield atlas of the Civil War is too much to hope for, unfortunately. With the possible exception of the *West Point Atlas of the Civil War*, there has never been a definitive cartographical study of the war.

Symonds' book contains very general battle and campaign maps, although they are quite clear and professionally done. An instructor at the U.S. Naval Academy, Symonds says that the book "originated with my students. Frustrated in their efforts to follow my chalkboard maneuvers in the classroom, they asked if I could pass out sketches of the campaigns. This volume is the result."

For what Symonds intended, the result indeed is a competent overview of the Civil War. Certainly no new ground is broken. In all, 43 battles and campaigns are examined, with each action usually containing one map and one page of text. Few of the maps show units below the corps level.

The volume's strength lies in the fact that Symonds eloquently sums up the movements of the armies in a relatively

few words, something that other authors have not been able to do. However, there are a number of inaccuracies in the text, particularly when Symonds writes about the battle of Gettysburg. He perpetuates the myths of "the search for shoes" and "Longstreet's slowness"; the charge of the 1st Minnesota is out of sequence; the arrival time and placement of Sedgwick's corps is confused; and 8,000 casualties are added to the true Confederate figure.

Readers who want to own a brief, concise atlas and history of the Civil War may find Symonds' book an economical alternative to others. Those who seek a definitive work should realize that this book is not it.

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**SAC: A PRIMER OF MODERN STRATEGIC AIRPOWER.** By Bill Yenne (Presidio Press, 1985. 138 Pages. \$10.95). Reviewed by Lieutenant Colonel Jack Mudie, United States Air Force Retired.

Webster's dictionary defines "primer" as an elementary textbook, and author Yenne's subtitle for this compact, well written, well illustrated book is right on the mark. This short but comprehensive history of the Strategic Air Command (SAC) covers its mission, leaders, weapons, and personnel from its establishment in 1946 to its present-day operation of two-thirds of our strategic Triad—

bombers, and ground-and sea-launched intercontinental missiles.

SAC's mission always has been to be prepared to conduct long-range offensive and reconnaissance operations in any part of the world. Initially, it was the only military force in the world with nuclear weapons. The deterrence of war—both nuclear and conventional—was the name of the game and SAC's motto, "Peace Is Our Profession," was and remains an anomaly to those military men with the "it ain't much of a war but it's the only one we've got" mentality.

Deterrence—at least the conventional kind—failed in Korea and Vietnam, and SAC found itself attacking tactical targets with iron bombs while tactical aircraft pecked away at the strategic ones, particularly during the war in Southeast Asia. The B-52 Arc Light strikes against the North Vietnamese and Viet Cong in South Vietnam, although an aberration that probably had airpower pioneers gnashing their teeth, were eagerly and gratefully welcomed by U.S. infantrymen, especially during the siege of the Khe Sanh.

When SAC was finally used properly in conjunction with supporting TAC and carrier aircraft against strategic targets in the Hanoi-Haiphong area during Linebacker II in late 1972—the so-called "Christmas Bombing Campaign" 18-29 December—the long deadlock at the

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Paris peace talks abruptly ended and the North Vietnamese finally came to terms. (Tragically, they subsequently violated these terms with impunity.) While no claim is made that the proper use of SAC could have successfully terminated the Vietnam War many years sooner, "these facts," as Henry Kissinger is quoted as saying, "have to be analyzed by each person for himself."

The section on Linebacker II should be of the most interest to readers. The clear charts of the B-52 attack routes to the Hanoi target area are exceptionally well done, and the lengthy quotations from participating planners, commanders, and crew members paint a vivid picture of those historic missions, which cost 15 B-52s and 11 other aircraft. (For a more detailed account of the "Christmas Bombing Campaign," *Linebacker II: A View from the Rock* is highly recommended. It is available from the U.S. Government Printing Office.)

Yenne includes information on the "other SACs"—Britain's RAF Bomber Command (now defunct), France's *Armee de l'air Commandement des Forces Aeriennes Strategique* (Strategic Air Command), and the Soviet Union's *Dal 'naya Aviatsiya* (Long-Range Aviation). He concludes with a recapitulation of arms control efforts from the early 19th century to the current START effort.

There are a few errors in this book that could and should have been corrected before publication. But it is still a good reference for the infantrymen seeking basic information about a unique military organization that is less well-known and publicized today than in its celebrated days of the 1950s and 1960s.

## RECENT AND RECOMMENDED

**THE ARMY GETS AN AIR FORCE.** By Frederic A. Bergerson. Johns Hopkins, 1980. 216 Pages.

**A FEW GREAT CAPTAINS.** By DeWitt S. Copp. Doubleday, 1980. 531 Pages. \$17.50.

**REPORT OF THE CHEMICAL WARFARE REVIEW COMMISSION.** Government Printing Office, 1985. S/N 008-000-00430-7. 124 Pages. \$2.75, Softbound.

**WEBSTER'S AMERICAN MILITARY BIOGRAPHIES.** Edited by Robert McHenry. A Reprint. Dover Publications, 1985. 548 Pages. \$11.95, Softbound.

**THE WAR MANAGERS.** By Douglas Kinnard. A Reprint. Avery Publishing Group, 1985. 226 Pages. \$9.95, Softbound.

**THE LAW ENFORCEMENT HANDBOOK.** By Desmond Rowland and James Bailey. Facts on File, 1985. 304 Pages. \$12.95, Softbound.

**THE MESSIAH AND THE MANDARINS: MAO TSE-TUNG AND THE IRONIES OF POWER.** By Dennis Bloodworth. Atheneum, 1982. 331 Pages. \$15.95.

NOTE TO READERS: All of the books mentioned in this review section may be purchased directly from the publisher or from your nearest book dealer. We will furnish a publisher's address on request.

**PATTON: THE MAN BEHIND THE LEGEND, 1885-1945.** By Martin Blumenson. William Morrow and Company, 1985. 171 Pages. \$17.95.

**HANDBUCH FOR SOLDATEN IM DIENST DER VEREINTEN NATIONEN.** Truppen-dienst-Taschenbuch, Band 29. Vienna: Verlag Carl Ueberreuter, 1985. 191 Pages. oS 80, Softbound.

**PILLBOXES: A STUDY OF U.K. DEFENSES, 1940.** By Henry Wills. David and Charles, 1985. 98 Pages. \$25.00.

**REQUIEM FOR BATTLESHIP YAMATO.** By Yoshida Mitsuru. Translation and Introduction by Richard H. Minear. University of Washington Press, 1985. 204 Pages. \$16.95.

**BIBLIOGRAPHY OF SOVIET INTELLIGENCE AND SECURITY SERVICES.** By Raymond G. Rocca and John J. Dziak. Westview Press, 1985. 203 Pages, Softbound.

**PREVENTING NUCLEAR WAR: A REALISTIC APPROACH.** By Barry M. Blechman. Indiana University Press, 1985. 197 Pages. \$17.50, Softbound.

**U.S. ARMY SPECIAL FORCES, 1952-1984.** By Gordon Rottman. Illustrated by Ron Volstad. Elite Series No. 4. Osprey, 1985. 64 Pages. \$9.95.

**VIKINGS.** By Ian Heath. Illustrated by Angus McBride. Elite Series No. 3. Osprey, 1985. 64 Pages. \$9.95.

**FLAK JACKETS: 20th CENTURY MILITARY BODY ARMOR.** By Simon Dunstan. Illustrated by Ron Volstad. Men-at-Arms Series No. 157. Osprey, 1985. 40 Pages. \$7.95.

**IWO JIMA: LEGACY OF VALOR.** By Bill D. Ross. The Vanguard Press, 1985. 376 Pages.

**MODERN WARFARE.** By the Marshall Caven-dish Editorial Board. ARCO, 1985. 249 Pages. \$19.95

**FIGHTING KNIVES: AN ILLUSTRATED GUIDE TO FIGHTING KNIVES AND MILITARY SURVIVAL WEAPONS OF THE WORLD.** By Frederick J. Stephens. ARCO, 1985. 127 Pages. \$11.95, Softbound.

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# **From The Editor**

## **65th YEAR**

With this issue, we mark the end of our 65th year of publication. Overall, it was a good year. We received many nice comments about the articles we published, and our various departments attracted a lot of favorable attention.

Unfortunately, we did not do as well on the subscription side of the house, despite holding our prices at the 1980 levels. (Not many magazines can say that.) Many Infantrymen seem to believe we are fully supported by appropriated funds and therefore are in the same category as field manuals, training circulars, and the like—that we are, in effect, free for the asking, or taking.

That is an erroneous belief. Our appropriated funds for publishing are quite limited and our free distribution of copies is tightly controlled. While we do send free copies to Infantry units and certain staff agencies in the Active Army and the Reserve Components *for use by everyone in those units and staff agencies*, we cannot—and do not—give free copies to individuals. We expect them to buy their own personal subscriptions.

We have been in the subscription business since we started publishing in 1921. Today, a number of our subscribers, in this country and abroad, have been with us for many years, through the good times and the bad. We thank them from the bottom of our hearts.

But we are disappointed that so many professional Infantrymen apparently do not think it worth their while to subscribe to their own professional publication. We feel we offer a professional product that can be of great value to Infantrymen everywhere who read it with care.

We would remind our readers, too, that a paid subscription to this, their professional journal brings with it membership in the Infantry Association. The Association was started in 1982 at Fort Benning to rekindle the Infantry spirit and to acknowledge, recognize, and promote the camaraderie of the Infantry.

This coming year, then, we ask all Infantrymen to consider subscribing to their journal. We don't think they will be disappointed.

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This year, for the first time in many years, we are pleased to offer a special rate for one-year gift subscriptions. (Sorry, this offer does not apply to two-year gift subscriptions.) The special rate is \$9.00 for six issues, which is a saving of \$1.00 from the cost of a new subscription. To become effective, the subscription must be intended for someone other than the requestor, and the request must be clearly marked with the words "Gift Subscription." Full payment must accompany each request. This offer ends 31 January 1986.

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